

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



845 Dup  
U. S. DEPARTMENT OF AGRICULTURE.

---

LIST OF WORKERS IN  
SUBJECTS PERTAINING TO AGRICULTURE AND  
HOME ECONOMICS IN THE U. S. DEPART-  
MENT OF AGRICULTURE AND IN THE  
STATE AGRICULTURAL COLLEGES AND  
EXPERIMENT STATIONS.

---

CORRECTED TO DECEMBER, 1915.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1916.





U. S. DEPARTMENT OF AGRICULTURE.

---

LIST OF WORKERS IN  
SUBJECTS PERTAINING TO AGRICULTURE AND  
HOME ECONOMICS IN THE U. S. DEPART-  
MENT OF AGRICULTURE AND IN THE  
STATE AGRICULTURAL COLLEGES AND  
EXPERIMENT STATIONS.

---

CORRECTED TO DECEMBER, 1915.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1916.



# List of Workers in Subjects Pertaining to Agriculture and Home Economics in the U. S. Department of Agriculture and in the State Agricultural Colleges and Experiment Stations.

## UNITED STATES DEPARTMENT OF AGRICULTURE.

(Prepared in the Division of Publications,  
JOS. A. ARNOLD, *Chief.*)

### OFFICE OF THE SECRETARY.

#### **Secretary of Agriculture, DAVID F. HOUSTON.**

The Secretary of Agriculture is charged with the work of promoting agriculture in its broadest sense. He exercises general supervision and control over the affairs of the department and formulates and establishes the general policies to be pursued by its various branches and offices.

#### **Assistant Secretary of Agriculture, CARL VROOMAN.**

The Assistant Secretary of Agriculture becomes Acting Secretary in the absence of the Secretary and assists in the supervision and administration of the work of the department.

#### **Chief Clerk, ROBERT M. REESE.**

The Chief Clerk has general supervision of clerks and employees; of the order of business of the department and of records of the Secretary's office; and of expenditures from appropriations for miscellaneous expenses, rents, etc. He is responsible for the enforcement of the general regulations of the department and is custodian of buildings.

#### **Office of the Solicitor, FRANCIS G. CAFFEY, *Solicitor.***

The Solicitor is the legal adviser of the Secretary and the heads of the several branches of the department. He directs and supervises all law work of the department.

#### ***Administrative and game laws section.* R. W. WILLIAMS, *Assistant to the Solicitor, in charge.***

This section attends to the administration of the general affairs of the office not specifically included in other sections; also prepares reports of violations, briefs, and memoranda, aids in drafting regulations, and assists in the trial of cases under the Lacey Act, migratory bird law, Alaska game law, and protection of bird reserves law.

#### ***National forests laws section.* F. LEES, *Assistant to the Solicitor, in charge.***

This section does the law work arising from business of the Forest Service, including contests of claims to lands in the national forests under homestead, mineral, and other laws, cases arising out of timber, fire, fencing, and other trespasses on the national forests, opinions to the Forester and review of opinions presented to the district foresters by assistants to the Solicitor in the field, and various other legal matters connected with the national forests, such as drafting of contracts, regulations, and forms, correspondence with the Attorney General and Secretary of the Interior, and miscellaneous correspondence; also prepares reports of violations, briefs, and memoranda, aids in drafting regulations, and assists in the trial of cases under the plant quarantine law.

#### ***Meat inspection, animal quarantine laws, and contract section.* C. W. BOYLE, *Assistant to the Solicitor, in charge.***

This section prepares reports of violations, briefs, and memoranda, aids in drafting regulations, and assists in the trial of cases under the meat-inspection, animal quarantine, 28-hour, other animal transportation and virus laws, and drafts informations and indictments in the quarantine and virus cases; also draws bonds, contracts, leases, and other agreements, and prosecutes applications of department employees for patents.

#### ***Food and drugs law section.* W. C. HENDERSON, *Assistant to the Solicitor, in charge.***

In connection with the Federal Food and Drugs Act, this section prepares recommendations to United States attorneys for seizures, drafts informations and indictments in

criminal cases, assists in the trial of important or technical cases, both civil and criminal, prepares notices of judgments, and aids in the conduct of public hearings and in drawing regulations, food-inspection decisions, and other rulings; also prepares reports of violations, briefs, and memoranda, aids in drafting regulations, and assists in the trial of cases under the Seed Importation Act.

*Insecticide and fungicide law section.* O. H. GATES, *Assistant to the Solicitor, in charge.*

In connection with the Federal Insecticide Act, this section prepares recommendations to United States attorneys for seizures, drafts informations and indictments in criminal cases, assists in the trial of important or technical cases, both civil and criminal, prepares notices of judgments, and aids in drawing regulations, insecticide decisions, and other rulings; also compiles, and revises from time to time, the "Laws Applicable to the United States Department of Agriculture," and handles claims for balances due estates of deceased employees.

*Marketing and rural organization section.* E. B. QUIGGLE, *Assistant to the Solicitor, in charge.*

This section handles law work in connection with the United States cotton futures act of August 18, 1914; advises the Office of Markets and Rural Organization regarding the legality of various types of cooperative organizations, and concerning legal problems relative to the marketing and distribution of farm products; conducts general correspondence and compiles laws relating to these subjects; also handles fiscal and miscellaneous legal questions.

*Acquisition of lands section.* A. H. McCONVILLE, *Assistant to the Solicitor, in charge.*

In connection with the acquisition of lands under the Weeks forestry law (act of Mar. 1, 1911), this section prepares agreements of purchase, supervises and directs the work of title attorneys engaged in the examination of titles, assists United States attorneys in the conduct of condemnation proceedings, and handles correspondence with the Attorney General.

*Assistants to the Solicitor, stationed in the field.*

Branches of the Office of the Solicitor are located at Missoula, Mont., in charge of D. F. McGowan, assisted by A. W. Herger; Denver, Colo., in charge of R. F. Feagans; Albuquerque, N. Mex., in charge of J. O. Seth; Ogden, Utah, in charge of J. F. Lawson; San Francisco, Cal., in charge of H. P. Dechant; and Portland, Oreg., in charge of W. F. Staley. These officers are legal advisers to the district foresters and handle the law work of the Forest Service in the field, besides such local legal work of the department as may be assigned by the Solicitor.

*Office of Farm Management.* W. J. SPILLMAN, *Agriculturist in charge.*

This office studies the details of farm practice. Its main object is to improve farm practice by introducing better business methods and by applying the principles of science wherever they are known. The types of farming prevailing in the various sections of the country are being studied in a number of localities, and a detailed study of farm economics and business principles is being made.

*Scientific staff.*—J. H. Arnold, O. E. Baker, C. M. Bennett, G. A. Billings, E. A. Boeger, D. A. Brodie, Junius S. Cates, Levi Chubbuck, R. W. Clothier, J. S. Cotton, M. A. Crosby, L. G. Dodge, J. A. Drake, C. L. Goodrich, Byron Hunter, S. O. Jayne, J. M. Johnson, H. B. McClure, J. C. McDowell, A. D. McNair, H. A. Miller, L. A. Moorhouse, A. G. Smith, Harry Thompson, E. H. Thomson, Rex E. Willard, and E. O. Wooton, agriculturists; F. H. Branch, L. G. Connor, A. J. Dadisman, H. M. Dixon, L. W. Fluharty, Earl S. Haskell, C. M. Hennis, C. E. Hoke, M. B. Oates, H. R. Smalley, F. D. Stevens, William B. Walker, and Arnold P. Yerkes, assistant agriculturists; H. H. Clark, W. C. Funk, H. W. Hawthorne, L. G. Howell, H. N. Humphrey, R. D. Jennings, Oscar A. Juve, Frank Montgomery, John C. Rundles, Earl D. Strait, Thomas H. Summers, S. M. Thomson, and H. A. Turner, scientific assistants; J. S. Ball, Lillian Church, M. O. Cooper, M. R. Cooper, G. H. Miller, H. G. Strait, and Raymond S. Washburn, assistants in farm cost accounting; William G. Reed, assistant in agricultural geography; E. A. Goldenweiser, statistical expert; H. H. Mowry, assistant in dry-land agriculture; L. L. Corbett, assistant farm superintendent; George L. Schultze, cartographer in agricultural geography.

*Office of Information.* G. W. WHARTON, *Chief.*

The Office of Information is established to secure the widest possible circulation in popular form for the discoveries and recommendations of the scientists, specialists, and field workers of the department. It gives out to the public press agricultural facts taken from publications and official orders, and also from oral statements of specialists. Material so disseminated is set forth in such form as to attract public attention, be easily understandable, and lead to the adoption of the methods recommended. A Weekly News Letter and Department Circular are published. The office also prepares circulars, posters, and pamphlets designed to assist workers in carrying out educational and demonstration plans.



**Office of Inspection.** ALEX. MCC. ASHLEY, *in charge.*

Handles personnel matters; is charged with the accounting and administrative examination of claims and the preparation of financial reports involving appropriations under the Office of the Secretary; and assists in the fiscal operations of the bureaus.

**Forest Appeals.** THOMAS G. SHEARMAN, *in charge.*

This officer investigates for the Secretary of Agriculture appeals from decisions of the Forest Service, and reports his findings to the Secretary.

**Appointment Clerk,** R. W. ROBERTS.

The Appointment Clerk prepares all papers connected with appointments, transfers, promotions, reductions, details, furloughs, and removals, and has charge of correspondence with the Civil Service Commission. He is the custodian of oaths of office and personnel reports. He has the custody and use of the department seal.

**Office of Exhibits.** F. LAMSON-Scribner, *Special Agent on Exhibits.*

The Office of Exhibits handles the correspondence of the department relative to exhibits at fairs and expositions of various kinds; cooperates with the several branches of the department in preparing exposition material; ships, installs, and cares for such exhibits; and investigates methods of displaying them.

**WEATHER BUREAU.**

**Chief,** CHARLES F. MARVIN; **Assistant Chief,** C. C. CLARK; **Chief Clerk,** EDGAR B. CALVERT.

The Weather Bureau has charge of the forecasting of the weather; the issue and display of weather forecasts and storm, cold-wave, frost, and flood warnings; the gauging and reporting of river stages; the maintenance and operation of the United States Weather Bureau telegraph and telephone lines; the collection and transmission of marine intelligence for the benefit of commerce and navigation; the reporting of temperature and rainfall conditions for agricultural interests; and the taking of such meteorological and seismological observations as may be necessary to determine and record the climatic and seismic conditions of the United States.

**Forecast Division.** HENRY E. WILLIAMS, *in charge.*

This division receives and charts, twice daily, telegraphic reports of the prevailing weather conditions and issues a statement of impending weather changes in all parts of the country. In the case of severe disturbances warnings are issued to special storm-warning stations along the Lakes and the seacoast.

**River and Flood Division.** ALFRED J. HENRY, *in charge.*

This division gives information as to stages of water along the navigable rivers and issues flood warnings. It gathers information on the depth of snowfall in the mountains of the West, for a study of the flow of water in the streams supplying irrigation projects, and on the rate of evaporation from ponds and lakes, in the interest of water storage for irrigation, power development, and navigation. It supervises, on the part of the Weather Bureau, the experiment stations maintained jointly by the Weather Bureau and the Forest Service.

**Climatological Division.** PRESTON C. DAY, *in charge.*

This division has charge of and supervises the work of about 4,200 cooperative stations, 42 special meteorological stations, and about 400 special stations maintained in connection with the corn, wheat, cotton, sugar, rice, tobacco, fruit, and cattle industries. From these are collected the records of daily observations of temperature, precipitation, and other meteorological conditions necessary to establish a history of the climate of the various portions of the United States. Data showing the current weather conditions throughout the country are collected and published weekly during the principal crop-growing season and monthly during the remainder of the year; also weekly during the winter months, showing the depth of snow on the ground and the thickness of ice in the rivers and harbors. It has charge of the preparation of the climatological portion of the annual reports of the bureau and supervises the monthly and annual summaries and other publications of the climatological service of the various States, including the weather conditions over the great cereal and cotton growing districts. This division has charge of the barometry of the United States and of the preparation of the normals of pressure, temperature, precipitation, etc. It also collates from reports of marine observers meteorological information pertaining to the oceans, and is charged with the supervision of the radiotelegraph weather service of the Atlantic and Pacific coasts.

**Instrument Division.** BENJAMIN C. KADEL, *Chief.*

Has supervision of the entire meteorological instrumental equipment of the Weather Bureau, including exposures and installations at stations; the purchase, comparison, and adjustment of all new meteorological instruments and apparatus for stock and issue; the construction and repair of instruments and apparatus for station equipments; the purchase, installation, and maintenance of automatic recording river gauges, and of the

storm-warning towers and lanterns employed at about 300 display stations on the sea-coasts and the Great Lakes; the inspection and personnel of storm-warning stations; and the evaporation work.

**Telegraph Division.** JOSEPH U. MUNROE, *Chief*.

This division receives and transmits all telegrams, arranges and controls telegraph circuits, maintains and repairs United States Weather Bureau telegraph and telephone lines and submarine cables, and examines all telegraph accounts.

**Library.** CHARLES F. TALMAN, *in charge*.

The library includes standard works of reference and technical books on meteorology and allied sciences and a complete file of the publications of meteorological and climatological services in all parts of the world. A catalogue is prepared of the meteorological contents of all the principal scientific periodicals of the world, including proceedings and transactions of societies. Translations from foreign languages are made in the library. The librarian has charge of the examinations held throughout the bureau for promotion to the scientific grades.

**Office of the Editor.** CLEVELAND ABBE, *in charge*.

This office edits and supervises the publication of the Monthly Weather Review; it also has general editorial supervision over scientific and semiscientific papers submitted for publication by the bureau, calling attention to such of these as seem appropriate for the Monthly Weather Review or the Journal of Agricultural Research, the daily press, etc. It prepares such summaries and indexes as may be necessary and also notes on the progress of meteorology.

**Printing Division.** ROBERT SEYBOTH, *Chief*.

This division prints and mails the daily weather map and the various charts and miscellaneous printed matter pertaining to the bureau and has the custody of and distributes station forms.

**Division of Supplies.** BENJAMIN A. BLUNDON, *Chief*.

This division purchases and issues supplies and is charged with the safe-keeping of all property belonging to the bureau.

**Stations and Accounts Division.** DELOS T. MARING, *Chief*.

This division audits, adjusts, and prepares for payment all accounts and claims against the bureau; prepares advertisements; issues requests for passenger transportation; prepares the annual estimates of appropriations; transacts all business relating to the financial interests of the bureau; and supervises the construction of Weather Bureau buildings outside of Washington, including repairs thereto.

**Solar Radiation Investigations.** HERBERT H. KIMBALL, *in charge*.

Principally concerned with measurements of the rate at which heat is received at the surface of the earth by radiation during the day from the sun and sky combined and from each source separately, also that lost at night, and the relation of these measurements to atmospheric conditions.

**Seismological Investigations.** WILLIAM J. HUMPHREYS, *in charge*.

These investigations include the collection and study of both instrumental records and personal observations of earthquake phenomena throughout the United States. One of the immediate objects in view is the detailed mapping of the country with reference to existing faults on the lines of weakness of the earth's crust as evidenced by breaks or movements thereon that occasionally take place causing small local earthquakes. Such maps are of interest to those who have occasion to locate dams and similar important permanent structures.

**Aerological Investigations.** WILLIAM R. BLAIR, *in charge*.

This work includes the exploration of the upper atmosphere, to altitudes of 3 to 10 miles, by means of kites and balloons, and the discussion of the data thus obtained in its relation to conditions at the earth's surface. The principal observing station is now located at Drexel, Nebr., having been transferred from Mount Weather, Va.

**Weather Bureau stations and work outside of Washington, D. C.**

This bureau maintains throughout the United States, in the West Indies, and in Hawaii about 200 meteorological stations employing from 1 to 10 men each.

For forecast purposes the United States is divided into districts comprising: (1) The upper Mississippi Valley and the Northwest, Henry J. Cox, Chicago, Ill., in charge. (2) Louisiana, Texas, Arkansas, and Oklahoma, Isaac M. Cline, New Orleans, La., in charge. (3) Utah, Colorado, New Mexico, and Arizona, Frederick H. Brandenburg, Denver, Colo., in charge. (4) California and Nevada, George H. Willson, San Francisco, Cal., in charge. (5) Washington, Oregon, and Idaho, Edward A. Beals, Portland, Oreg., in charge. (6) The remainder of the United States, forecaster on duty (Harry C. Frankenfeld or Edward H. Bowie), Washington, D. C., in charge.

For the collection and distribution of climatological data the United States, including Porto Rico and Hawaii, is divided into 44 sections, generally coextensive with States, which, with the names of the officials in charge and the section centers, are as follows:

Alabama: Patrick H. Smyth, Montgomery.	Nebraska: George A. Loveland, Lincoln.
Arizona: Robert R. Briggs, Phoenix.	Nevada: Henry F. Alciatore, Reno.
Arkansas: Harvey S. Cole, Little Rock.	New England: John W. Smith, Boston, Mass.
California: George H. Willson, San Francisco.	New Jersey: G. Harold Noyes, Trenton.
Colorado: Frederick H. Brandenburg, Denver.	New Mexico: Charles E. Linney, Santa Fe.
Florida: Alexander J. Mitchell, Jacksonville.	New York: Wilford M. Wilson, Ithaca.
Georgia: Charles F. von Herrmann, Atlanta.	North Carolina: Lee A. Denson, Raleigh.
Hawaii: Andrew M. Hamrick, Honolulu.	North Dakota: Orris W. Roberts, Bismarck.
Idaho: Edward L. Wells, Boise.	Ohio: J. Warren Smith, Columbus.
Illinois: Clarence J. Root, Springfield.	Oklahoma: J. Pemberton Slaughter, Oklahoma.
Indiana: John H. Armington, Indianapolis.	Oregon: Edward A. Beals, Portland.
Iowa: George M. Chappel, Des Moines.	Pennsylvania: George S. Bliss, Philadelphia.
Kansas: Thorp B. Jennings, Topeka.	Porto Rico: F. Eugene Hartwell, San Juan.
Kentucky: Ferdinand J. Walz, Louisville.	South Carolina: Richard H. Sullivan, Columbia.
Louisiana: Isaac M. Cline, New Orleans.	South Dakota: Montello E. Blystone, Huron.
Maryland and Delaware: Oliver L. Fassig, Baltimore, Md.	Tennessee: Roscoe Nunn, Nashville.
Michigan: Charles F. Schneider, Grand Rapids.	Texas: Bernard Bunnemeyer, Houston.
Minnesota: Ulysses G. Purssell, Minneapolis.	Utah: Alfred H. Thiessen, Salt Lake City.
Mississippi: William E. Barron, Vicksburg.	Virginia: Edward A. Evans, Richmond.
Missouri: George Reeder, Columbia.	Washington: George N. Salisbury, Seattle.
Montana: Henry F. Alps, Helena.	West Virginia: Henry C. Howe, Parkersburg.
	Wisconsin: Henry B. Hersey, Milwaukee.
	Wyoming: Robert Q. Grant, Cheyenne.

#### BUREAU OF ANIMAL INDUSTRY.

*Chief, A. D. MELVIN; Assistant Chief, JOHN R. MOHLER; Chief Clerk, CHARLES C. CARROLL.*

The Bureau of Animal Industry has charge of the work of the department relating to the live-stock industry. In general it deals with the investigation, control, and eradication of diseases of animals, the inspection and quarantine of live stock, the inspection of meat and meat food products, and with animal husbandry and dairying.

#### **Animal Husbandry Division.** GEORGE M. ROMMEL, *Chief.*

This division studies the breeding and feeding of farm animals and poultry, and passes upon the pure breeding of animals imported into the United States for breeding purposes. The division is engaged in work in cooperation with the War Department in encouraging the breeding of horses for military purposes. It studies also the cost of production of poultry and eggs, methods of improving the quality of farm eggs, and is engaged in the organization of boys' and girls' pig and poultry clubs in cooperation with the States Relation Service of the department and State agricultural colleges.

*Staff.*—G. Arthur Bell, senior animal husbandman in horse investigations; Harry M. Lamon, senior animal husbandman in poultry investigations; W. F. Ward, senior animal husbandman in beef cattle investigations; F. R. Marshall, senior animal husbandman in sheep and goat investigations; S. G. Wright, senior animal husbandman in animal breeding investigations; E. L. Shaw, senior animal husbandman in charge of work of this division at the experiment farm, Beltsville, Md.

#### **Biochemic Division.** M. DORSET, *Chief.*

This division prepares tuberculin and mallein for free distribution to health officers for use in official tests; conducts experiments with the object of obtaining vaccines and antitoxins for animal diseases; carries on researches concerning the causes of certain infectious diseases; conducts field demonstrations of methods for controlling hog cholera; takes part in the control of viruses, serums, toxins, and analogous products intended for use in the treatment of domestic animals; carries on experiments with dips and disinfectants; and assists in enforcing the insecticide act of 1910 by examining articles intended for use in combating insects and fungi which infest domestic animals. It carries



on bacteriological and chemical research work relative to meat and meat food products in connection with the meat inspection.

*Scientists in charge of sections.*—J. A. Emery, assistant chief and member of the Insecticide and Fungicide Board; C. N. McBryde, in charge of bacteriological investigations of meats; R. M. Chapin, in charge of dips and disinfectants; Ralph Hoagland, in charge of biochemical investigations of meats; W. B. Niles, in charge of hog-cholera serum production; H. J. Shore, in charge of inspection of plants producing hog-cholera; O. B. Hess, in charge of county experiments in eradication of hog cholera.

**Dairy Division.** B. H. RAWL, *Chief.*

This division collects and disseminates information concerning dairy farming, the care and improvement of dairy cattle, and the production, care, and distribution of dairy products. It is charged also with the details of administration of the laws concerning the inspection of factories and markets for "renovated" or "process" butter. It carries on research concerning the chemistry and bacteriology of dairy products and in engineering problems that affect various branches of the dairy industry. It also co-operates with State and local institutions in educational work in dairying.

*Miscellaneous.*—D. Stuart, dairy husbandry; K. E. Parks and J. T. Bowen, dairy engineers.

*Research laboratories.*—L. A. Rogers, in charge; S. H. Ayers, N. R. Blatherwicks, F. R. Cammack, W. M. Clark, P. W. Clemmer, J. N. Currie, B. J. Davis, E. F. Deysher, D. C. Dyer, Alice C. Evans, W. T. Johnson, jr., H. F. Jones, H. C. Jordan, H. A. Lubs, K. J. Matheson, C. A. Menge, E. B. Meigs, P. Rupp, R. H. Shaw, O. E. Williams, P. A. Wright.

*Dairy farming investigations and demonstrations.*—Helmer Rabild, in charge; H. P. Davis, R. C. Jackson, Melvin Moss, E. A. Onsrud. This work includes: (1) Southern dairying.—J. H. McClain, in charge; F. H. Denniss, F. H. Farnham, W. W. Fitzpatrick, L. A. Higgins, C. A. Hutton, J. P. La Master, R. L. Pou, J. P. Quinerly, A. J. Reed. (2) Dairy work in tick-free areas.—J. A. Arey, O. M. Camburn, H. T. Converse, J. L. Graybill, W. H. Howell, R. H. Mason, T. W. Moseley, H. C. Stockwell, D. W. Watkins. (3) Dairy community development.—R. R. Welch. (4) Cow-testing associations and bull associations, and dairy work with county agents.—H. C. Barker, C. L. Burlingham, H. Fergus, A. M. Goodman, W. L. Kellogg, Ivan McKellip, W. A. McKerrow, K. B. Musser, N. A. Negley, G. L. Oliver, O. I. Oshel, D. H. Propps, C. N. Smith, J. G. Winkler, G. E. Wolcott. (5) Dairy demonstration farm in Texas.—S. B. Durham. (6) Holstein-Friesian breeding circuit in North Dakota.—U. J. Downey.

*Dairy manufacturing investigations and renovated-butter inspection.*—S. C. Thompson, in charge; E. L. Chaplin, T. Corneliussen, A. O. Dahlberg, H. C. Darger, C. F. Doane, C. W. Fryhofer, G. A. Gilbert, J. C. Joslin, M. W. Lang, W. B. Liverance, T. A. Meehan, F. L. Odell, M. P. A. Sondergaard, O. A. Storvick, J. L. Thomas, W. B. Thurston, Wm. White.

*Market milk investigations.*—Ernest Kelly, in charge; J. B. Bain, C. E. Clement, Stanley Combs, L. B. Cook, J. A. Gamble, R. J. Posson, R. S. Smith, G. B. Taylor.

*Western dairy investigations.*—J. E. Dorman, in charge; W. A. Barr, F. H. Bothell, E. F. Burton, B. R. Eldredge, G. E. Frevert, F. W. Kehrl, F. M. Hillman, A. J. Lashbrook, K. W. Latta, W. E. Meyer, V. E. Scott.

*Beltville farm.*—T. E. Woodward, superintendent.

**Field Inspection Division.** R. A. RAMSAY, *Chief*; W. P. ELLENBERGER, *Assistant.*

This division, in cooperation with the State authorities, is charged with the work of eradicating scabies in cattle and sheep and the eradication of ticks which infest cattle and transmit disease; also, in cooperation with the Office of Indian Affairs and State authorities, with the eradication of glanders. It has supervision of the interstate transportation of live stock, including inspection, disinfection, certification, etc.; also of the details of administering the 28-hour law governing the humane handling of live stock in transit, and the tuberculin testing of cattle and the mallein testing of horses, etc., for interstate movement. This division has charge of the emergency work of eradicating foot-and-mouth disease.

*Inspectors in charge of scabies eradication in the field.*—H. J. Hammond, Sacramento, Cal.; William Hamilton, Walla Walla, Wash.; F. E. Murray, Salt Lake City, Utah; F. L. Schneider, Albuquerque, N. Mex.; W. E. Howe, Denver, Colo.; R. H. Treacy, Bismarck, N. Dak.; James Fleming, Kansas City, Kans.; A. W. Miller, South Omaha, Nebr.

*Inspectors in charge of tick eradication in the field.*—W. M. MacKellar, San Diego, Cal.; L. J. Allen, Fort Worth, Tex.; F. W. Brewer, Oklahoma, Okla.; A. E. Wight, Little Rock, Ark.; J. A. Kiernan, Birmingham, Ala.; E. M. Nighbert, Atlanta, Ga.; W. K. Lewis, Clemson College, S. C.; T. M. Owen, Norfolk, Va.

*Inspector in charge of tuberculosis eradication.*—J. S. Jenison, Chicago, Ill.

**Meat Inspection Division.** R. P. STEDDOM, *Chief.*

The work of the Meat Inspection Division includes the ante-mortem and post-mortem inspection of cattle, sheep, swine, and goats slaughtered at establishments engaged in interstate or foreign commerce; the supervision of such establishments and of the



various processes of preparing, curing, canning, packing, etc., so as to insure sanitary conditions, equipment, and methods; the condemnation and proper disposal of carcasses and products found to be diseased, unwholesome, or otherwise unfit for human food; the marking and certification of meats and products that have been inspected and passed; and the regulation and supervision of the interstate transportation, exportation, and importation of meats and meat food products.

*Assistants.*—George Ditewig, in charge of western division; A. J. Pistor, in charge of eastern division.

G. H. Parks, architect; G. H. Shaw, sanitary engineer.

A directory showing the various meat-inspection stations and inspectors in charge may be obtained on application to the bureau.

**Miscellaneous Division.** A. M. FARRINGTON, *Chief*; IRVING W. PEW, *Assistant Chief, in charge of Appointment Section.*

This division keeps the records of the projects of work in which the bureau is engaged; has charge of the work relating to the personnel, such as appointments, transfers, assignments to duty, efficiency records, etc.; endeavors to promote veterinary education and to assist veterinary colleges in providing adequate courses of instruction to qualify men for the veterinary service of the bureau; and attends to miscellaneous duties.

**Pathological Division.** ADOLPH EICHHORN, *Chief.*

This division conducts scientific investigations of animal diseases; carries on experiments with immunizing agents for the purpose of protecting animals against disease; cooperates with the State agricultural experiment stations with a view to combating diseases peculiar to the localities; determines pathological specimens referred to the division for diagnosis; and prepares and distributes blackleg vaccine.

*Scientific staff.*—Henry J. Washburn, senior bacteriologist; J. S. Buckley, in charge of field investigations; A. R. Ward, in charge of investigations of viruses, serums, and toxins; B. A. Gallagher, in charge of investigations concerning diseases of poultry and cold-blooded animals; Charles F. Flocken, in charge of cooperative experiments with the Minnesota Experiment Station; Robert J. Formad, assistant in animal pathology; George M. Potter, assistant in animal bacteriology; John M. Buck, assistant in bacteriology, in charge of experiments on dourine; H. W. Schoening, in charge of experiments on glanders; L. T. Giltner, veterinary inspector, assisting in experiments on dourine; R. A. Kelser, in charge of testing biological products; Hadleigh Marsh, in charge of blackleg investigations; C. D. Marsh, in charge, A. B. Clawson, assistant, in investigations of poisonous plants; W. U. Berg, in charge of physiological investigations; H. C. Campbell, in charge of experiments in cooperation with the Pennsylvania Live Stock Sanitary Board; W. N. Williams, in charge of experiments on contagious abortion of cattle in cooperation with Cornell University; L. Enos Day, in charge of branch pathological laboratory at Chicago, Ill.; George Byron Morse, in charge of branch pathological laboratory at South Omaha, Nebr.

**Quarantine Division.** RICHARD W. HICKMAN, *Chief.*

The inspection and quarantine of imported animals with a view to excluding contagion, the management of the animal quarantine stations, and the inspection of live stock for export come under this division. The ships carrying exported animals are also inspected, and regulations as to fittings, equipment, ventilation, feed, water, attendants, etc., are enforced. The Quarantine Division administers the sanitary regulations governing the importation of hides, hay, and straw, and directs the tuberculin testing of cattle and the mallein testing of horses for export and import. It also carries on work in cooperation with State and other authorities for the intrastate tuberculin testing of dairy and breeding cattle and the cows supplying milk to cities, with a view to eliminating tuberculosis from such cattle. Plans are being formulated to cooperate with State live stock sanitary boards, breeders' record associations, and individual breeders for the tuberculin testing and recording with the bureau of pure-bred animals for breeding purposes, with the view to facilitating the sale, purchase, and interchange of such animals certified as free from tuberculosis or exposure thereto through association with tuberculous animals.

*Staff.*—George W. Pope, assistant chief; B. T. Woodward, in charge of tuberculin testing of dairy cattle.

**Zoological Division.** B. H. RANSOM, *Chief.*

This division investigates diseases of parasitic origin, collects and describes animal parasites of all kinds, determines such parasites as are sent to the bureau for identification, and keeps a card index of animal parasites and a bibliography of literature relating to them.

*Scientific Staff.*—Albert Hassall, assistant zoologist; M. C. Hall, in charge of investigations on the treatment of internal parasites; Howard Crawley, in charge of investigations of parasitic protozoa; W. D. Foster and Benjamin Schwartz, junior zoologists; Marion Imes, in charge of investigations on the treatment of external parasites, Kansas

City, Kans.; Cooper Curtice, in charge of experiments in the eradication and control of internal parasites of sheep, Vienna, Va.

**Experiment Station.** E. C. SCHROEDER, *Superintendent*.

The Experiment Station of the bureau is located at Bethesda, Md. It conducts investigations of animal diseases with a view to their control and eradication and their bearing on the public health. A small farm is maintained in such a manner as to provide the other divisions of the bureau with facilities for making observations for which large domestic animals are needed. The work of the station consists of both independent original investigations and investigations in cooperation with and supplemental to those of the other divisions.

*Assistants.*—W. E. Cotton, George W. Brett.

**Editorial Office.** JAMES M. PICKENS, *Editor*.

This office edits manuscripts prepared in the bureau, compiles and prepares information and material for publication and other uses, attends to correspondence relating to the publications and to miscellaneous subjects, makes translations, reads proof, duplicates circular letters, etc.

### FOREST SERVICE.

*Forester*, HENRY S. GRAVES; *Associate Forester*, ALBERT F. POTTER.

The Forest Service administers the national forests, studies forest conditions and methods of forest utilization, investigates the mechanical and physical properties of woods and the processes employed in the manufacture of forest products, and gathers information concerning the needs of the various wood-using industries and the relation of forests to the public welfare generally.

The work of the Forest Service is organized under the Office of the Forester, 5 branches, 7 districts, 154 national forests, and 16 purchase areas.

#### Office of the Forester.

**Office of the Editor.** HERBERT A. SMITH, *Editor*; FINDLEY BURNS, *in charge of technical review*; DON CARLOS ELLIS, *in charge of educational cooperation*; C. M. BALLARD, *in charge of proofs and forms*.

This office disseminates information concerning forestry through the public press and other channels, and performs the editorial and educational work of the service, including the review and proof reading of publications and forms; cooperation with teachers, officers of public instruction, and others; the preparation, installation, and care of forest exhibits; and the care and use of the lantern-slide collection.

**Dendrologist.** GEORGE B. SUDWORTH.

The dendrologist is charged with investigations relating to the life history of native and exotic forest trees, their geographic distribution, distinguishing characteristics, habits and associations in the formation of forests, etc.; also the selection, adaptation, and care of trees for shade and ornamental purposes.

**Expert Lumberman.** EUGENE S. BRUCE.

The expert lumberman advises the Forester in matters regarding lumbering operations on the national forests and elsewhere.

**Accounts.** M. E. FAGAN, *Chief*; A. W. SMITH, *Assistant Chief*.

This office is in charge of all fiscal affairs pertaining to the Forest Service—general bookkeeping, controlling accounts, allotments, and liabilities, and all operations of district fiscal agents.

**Water Power.** O. C. MERRILL, *Chief Engineer*; T. W. NORCROSS, *Assistant Chief Engineer*; R. R. RANDELL, *Assistant Engineer*.

The work of this office includes the handling of all routine matters connected with the occupancy and use of forest land for hydroelectric power purposes. It also has charge of road-construction work under the provisions of the act of August 10, 1912, appropriating 10 per cent of the annual gross revenue of the national forests for road construction.

#### Branch of Operation.

JAMES B. ADAMS, *Assistant Forester in charge*; D. D. BRONSON, *Forest Inspector*; ALLEN S. PECK, *Forest Inspector*; G. G. ANDERSON, *Inspector of Records*; W. J. MANGAN, *Examiner*.

This branch has general supervision of estimates and allotments, personnel, quarters, equipment and supplies, and of fire protection and permanent improvement work on the national forests.

**Geography.** C. A. KOLB, *Chief.*

This office collects and preserves maps, compiles general maps and folios for the forest atlas, supervises the engraving and printing of maps and diagrams, tabulates forest statistics, collects and records data showing the status of lands within the national forests, and performs photographic work for the service.

**Maintenance.** GEORGE A. BENTLEY, *Chief.*

The work of this office includes all matters relating to the care of quarters and the purchase and custody of supplies, furniture, instruments, and other equipment in Washington, D. C.

**Branch of Silviculture.**

W. B. GREELEY, *Assistant Forester in charge*; R. Y. STUART, *Forest Inspector*; E. E. CARTER, *Forest Inspector*; AUSTIN CARY, *Logging Engineer*; HARRY IRION, *Office Assistant.*

Through the district foresters the Branch of Silviculture has supervision of timber sales, timber and fire trespass, and reforestation on the national forests, and of working plans for their better administration. It cooperates with the States and private owners in fire protection and the practice of forestry.

**State Cooperation.** J. G. PETERS, *Chief.*

This office, in cooperation with the States, investigates forest conditions and suggests needed legislation and forest policies; prepares digests of State forest laws; cooperates with a number of States, under the Weeks law (act of Mar. 1, 1911), in the protection of the watersheds of navigable streams; directs expenditures for this purpose; and inspects the work done in the field.

*Inspection.*—L. S. Murphy.

**Development of Private Forestry.** E. S. BRYANT, *Chief.***Branch of Grazing.**

ALBERT F. POTTER, *Associate Forester in charge*; WILL C. BARNES, *Assistant Forester*; J. W. NELSON, *Inspector of Grazing.*

The Branch of Grazing has, through the district foresters, general supervision of the range in the national forests. When the number of stock to be allowed on each national forest has been determined by the Secretary of Agriculture, the Branch of Grazing establishes the year-long grazing fee to be charged for each class of stock. It also conducts investigations concerning the best use of the forage resources of the national forests.

**Grazing Studies.** JAMES T. JARDINE, *Inspector of Grazing, in charge.*

This office deals with investigations aimed to bring about more efficient utilization by permitted live stock of the annual forage crop produced on ranges within national forests. It is also directing the survey and type classification of range lands within national forests by range reconnaissance.

**Branch of Lands.**

E. A. SHERMAN, *Assistant Forester in charge.*

This branch has general supervision of all matters relating to the application of the public-land laws to the lands within the national forests, and the uses of national forest lands other than timber sales and grazing.

**Land Classification.** JOHN D. JONES, *in charge.*

Examination and classification of lands within the national forests to determine their value for forest purposes.

*Settlement.*—F. L. Harvey, *in charge.* Administration of the Forest Homestead Act of June 11, 1906.

*Boundaries.*—B. L. Wheeler, *in charge.* Revision of forest boundaries and general classification of lands within national forests as to their value for forest purposes.

*Entry Surveys.*—R. V. R. Reynolds, *in charge.* Survey of forest homesteads in the national forests under instructions issued by surveyors general of the General Land Office.

**Claims and Occupancy.** CHARLES H. SQUIRE, *in charge.*

This office has general supervision of all work pertaining to the examination of, and reporting on, lands within the national forests title to which is sought under the public-land laws. Where the acquisition of title is opposed the office cooperates with the office of the Solicitor in procuring necessary evidence. The office also has general charge of all matters relating to the occupancy of national forest land for any purpose except grazing. This includes the granting of rights of way for railroads, irrigation projects, etc.



**Branch of Research.**EARLE H. CLAPP, *Assistant Forester in charge.*

This branch has general supervision, either directly or through the district foresters, of forest investigations, protection studies, the silvicultural experiment stations, and the Forest Products Laboratory; investigations of wood, wood products, the lumber and other wood-using industries, logging costs, mill and market studies, forest statistics, including the collection of statistics of the wood-using industries, general economic questions bearing on forestry, and forest administration.

**Forest Investigations.** RAPHAEL ZON, *Chief*; S. T. DANA, *Assistant Chief.*

The Office of Forest Investigations deals mainly with the scientific problems underlying the management of forests. It directs the work at the national forest experiment stations through the district foresters and investigates the factors controlling the distribution of forests and forest trees, the relation of forests to stream flow and climate, the conditions under which natural regeneration of cut-over, burned-over, or otherwise denuded areas takes place, and the species and methods adapted to use in artificial reforestation under varying site conditions. It also studies the requirements of important species as to climate, soil, moisture, and light. It identifies field specimens and studies the commercial and botanical range of trees. The office conducts investigations of woodlots and, in cooperation with the extension agents of the States, demonstrates the best methods of handling them with special reference to marketing the product and caring for the timber crop. The library of the Forest Service is connected with this office; it contains 18,200 books and pamphlets on forestry and allied subjects.

*Studies.*—G. E. Clement, E. H. Frothingham, G. N. Lamb, Benton MacKaye, W. R. Mattoon, C. H. Shinn, W. D. Sterrett, C. R. Tillotson.

*Forest Distribution.*—W. H. Lamb, Georgie Wharton.

*Forest Measurement.*—W. B. Barrows.

*Compilation.*—Elizabeth Leech.

**Industrial Investigations.** H. S. BETTS, *in charge.*

This office studies the wood-using industries of various States, woods used in manufacture, and methods of disposing of mill waste; collects statistics on the price of lumber at the mill and at the principal distributing markets of the country; and studies specifications and grading rules. The office also secures statistics of importance to the experimental work of the service and studies the movements of lumber to and from the principal markets.

*Studies.*—W. D. Brush, J. T. Harris, R. K. Helpenstine, jr., J. C. Nellis, and A. H. Pierson.

**Laboratory.** HOWARD F. WEISS, *Director*; C. P. WINSLOW, *Administrative Assistant.*

A forest-products laboratory is maintained in cooperation with the University of Wisconsin, at Madison. The laboratory conducts the following classes of experimental investigations in the utilization of forest products: (1) Investigation of problems in experimental research; (2) experimental work in cooperation with commercial operations to verify laboratory experiments on a commercial scale; (3) cooperation with individuals or companies to assist them in applying principles and processes of proved commercial value. The lines of work pursued include wood preservation, wood chemistry, timber tests, and wood technology.

*Commercial Extension.*—Rolf Thelen.

*Derived Products.*—Dr. S. F. Acree, *in charge.*

*Engineering.*—A. L. Heim, *in charge.*

*Pulp and Paper.*—Dr. Otto Kress, *in charge.*

*Timber Tests.*—John A. Newlin, *in charge.*

*Timber Physics.*—H. D. Tiemann, *in charge.*

*Wood Preservation.*—C. H. Teesdale, *in charge.*

*Pathology.*—C. J. Humphrey, *in charge.*

**Acquisition of Lands under the Weeks Law.**

WM. L. HALL, *Assistant Forester in charge*; W. W. ASHE, *in charge of examination of lands*; R. DIEFFENBACH, *in charge of survey of lands.*

This office designates the areas where lands are to be purchased, receives proposals, examines lands, conducts tentative negotiations, prepares recommendations to the Secretary of Agriculture and the National Forest Reservation Commission, and makes surveys of lands to be acquired under the act of March 1, 1911, for the protection of the watersheds of navigable streams.

**Districts.**

*District 1.*—National forests in northern Idaho, Montana, North Dakota, and the north-west corner of South Dakota; headquarters at Missoula, Mont. F. A. Silcox, district forester; E. W. Kramer, district engineer.

*District 2.*—National forests in Colorado, Nebraska, the greater part of South Dakota, eastern and central Wyoming, Minnesota, and Michigan; headquarters at Denver, Colo. Smith Riley, district forester; Lyle A. Whitsit, hydroelectrical engineer.

*District 3.*—National forests in most of Arizona and all of New Mexico; headquarters at Albuquerque, N. Mex. A. C. Ringland, district forester; Lyle A. Whitsit, hydroelectrical engineer.

*District 4.*—National forests in Utah, northwestern Arizona, most of Nevada, southern Idaho, and western Wyoming; headquarters at Ogden, Utah L. F. Kneipp, district forester; J. P. Martin, district engineer; A. M. Smith, property clerk; J. G. Falck, property auditor.

*District 5.*—National forests in California and western Nevada; headquarters at San Francisco, Cal. Coert Du Bois, district forester; F. H. Fowler, district engineer.

*District 6.*—National forests in Washington, Oregon, northwestern California, and Alaska; headquarters at Portland, Oreg. George H. Cecil, district forester; Leonard Lundgren, district engineer.

*District 7.*—National forests and purchase areas in Arkansas, Florida, Oklahoma, Porto Rico, South Carolina, Georgia, North Carolina, Tennessee, Virginia, West Virginia, and New Hampshire; headquarters at Washington, D. C. W. L. Hall, district forester; F. W. Reed, assistant district forester; H. O. Stabler, assistant district forester.

Within each district (except district 7) the Offices of Operation, Silviculture, Grazing, Products, and Lands perform duties similar to those performed by the corresponding branches outside the districts. The assistant district foresters in charge of these offices in the several districts are as follows:

*Operation.*—(1) R. H. Rutledge; (2) Fred W. Morrell; (3) A. O. Waha; (4) A. C. McCain; (5) Roy Headley; (6) C. H. Flory.

*Silviculture.*—(1) J. F. Preston; (2) C. M. Granger; (3) O. M. Butler; (4) Clinton G. Smith; (5) T. D. Woodbury; (6) F. E. Ames.

*Grazing.*—(1) C. H. Adams; (2) John H. Hatton; (3) John Kerr; (4) Homer E. Fenn; (5) C. E. Rachford; (6) T. P. McKenzie.

*Products.*—(5) C. S. Smith; (6) H. B. Oakleaf; (7) S. L. Wolfe.

*Lands.*—(1) F. A. Fenn; (2) C. J. Stahl; (3) Frank C. W. Pooler; (4) T. C. Hoyt; (5) L. A. Barrett; (6) C. J. Buck.

**BUREAU OF PLANT INDUSTRY.**

*Physiologist and Pathologist and Chief of Bureau*, WILLIAM A. TAYLOR; *Physiologist and Assistant Chief of Bureau*, KARL F. KELLERMAN; *Chief Clerk*, JAMES E. JONES; *Officer in charge of publications*, J. E. ROCKWELL; *Officer in charge of records*, W. P. COX.

The Bureau of Plant Industry studies plant life in all its relations to agriculture. The scientific work of the bureau is divided into 31 distinct groups, over each of which is placed a scientifically trained officer, who reports directly to the chief and assistant chief of the bureau. The work of the bureau is conducted on the project plan, the investigations under each of the offices being arranged by group projects consisting of closely related lines of work. These group projects are further divided into subprojects.

**Laboratory of Plant Pathology.** ERWIN F. SMITH, *Pathologist in charge*.

This is the central working laboratory for all of the pathological investigations conducted by the bureau. Studies of the diseases of a wide variety of crop plants are made in the laboratory and supplemented by field investigations and experimentation.

*Scientific staff.*—R. E. B. McKenney, pathologist; Frederick V. Rand, Florence Hedges, Nellie A. Brown, and Lucia McCulloch, assistant pathologists; Mary K. Bryan, Ella M. Enlows, and Lillian C. Cash, scientific assistants.

**Pathological Collections.** FLORA W. PATTERSON, *Mycologist in charge*.

This office maintains economic collections of pathological and related material; identifies edible and poisonous fungi; studies problems in entomogenous fungi; conducts taxonomic work in cooperation with various offices of the bureau; and makes miscellaneous identifications. In addition to securing new species of pathological fungi and systematically inserting them where they may be readily available for study, card indexes are maintained which refer to descriptions of fungi or relate to mycological or pathological subjects.

*Scientific staff.*—Vera K. Charles, assistant mycologist; Anna E. Jenkins, scientific assistant; Edith K. Cash, botanical translator.

**Fruit-Disease Investigations.** MERTON B. WAITE, *Pathologist in charge.*

These studies deal with diseases of fruits and fruit trees and methods of controlling or preventing them. They cover deciduous orchard fruits, citrus fruits, small fruits, and the cultivated nuts. Field demonstrations are an important part of the work.

*Scientific staff.*—C. L. Shear, Charles Brooks, J. G. Grossenbacher, W. S. Ballard, J. W. Roberts, and Neil E. Stevens, pathologists; S. M. McMurran, assistant pathologist; Clara H. Hasse, Durward F. Fisher, J. S. Cooley, E. M. Harvey, Angie M. Beckwith, Lee M. Hutchins, Bert A. Rudolph, Eugene A. Siegler, and Raymond B. Wilcox, scientific assistants; J. M. Shull, botanical artist; and Leslie Pierce, assistant in spraying experiments and demonstrations.

**Investigations in Forest Pathology.** HAVEN METCALF, *Pathologist in charge.*

This office studies various diseases affecting forest trees and timber, as well as ornamental and shade trees. The work is conducted in close cooperation with the Forest Service.

*Scientific staff.*—George G. Hedcock and Perley Spaulding, pathologists; E. P. Meinecke, J. Franklin Collins, James R. Weir, William H. Long, and Carl P. Hartley, forest pathologists; Geo. F. Gravatt, C. J. Humphrey, and Nicholas R. Hunt, assistant pathologists; Roy G. Pierce, forest assistant; Ruby J. Tiller, John S. Boyce, Ruth M. Fleming, Ernest E. Hubert, and Ned W. Lacey, scientific assistants.

**Cotton and Truck Disease Investigations.** W. A. ORTON, *Pathologist in charge.*

These investigations cover diseases of garden vegetables, including field demonstration of methods of control and prevention; diseases of cotton and of cowpeas and other forage crops.

*Scientific staff.*—H. A. Edson, F. J. Pritchard, and J. B. Norton, physiologists; L. P. Byars, W. W. Gilbert, and L. L. Harter, pathologists; L. O. Watson and Venus W. McKay, assistant pathologists; Joseph Rosenbaum, mycologist; O. A. Pratt, C. W. Carpenter, M. B. McKay, and H. G. McMillan, scientific assistants.

**Crop Physiology and Breeding Investigations.** WALTER T. SWINGLE, *Physiologist in charge.*

This office investigates the physiology of crop plants with a view to determining the limiting factors which control their successful culture and the breeding and testing of new varieties. Several field stations are maintained. Field investigations are conducted on some of the Indian reservations of the Southwest for testing crop plants which seem likely to be suited for culture by the Indians and by white settlers in adjoining regions. Dates, Smyrna figs, hardy citrus fruits, pistaches, and certain drought-resistant tree crops are being tested.

*Scientific staff.*—S. C. Mason, arboriculturist; G. P. Rixford, physiologist; Maude K. Swingle, botanical assistant; E. M. Savage, assistant plant breeder; Bruce Drummond and E. W. Hudson, assistants; Tyozaburo Tanaka, botanical translator.

**Soil Bacteriology Investigations.** Directed by Assistant Chief of Bureau.

This work is a study of the relation of bacteria to soil fertility, plant growth, cellulose destruction, and the fixation of nitrogen. Pure cultures of nodule-forming bacteria for leguminous crops are distributed.

*Scientific staff.*—Felix Löhnis, soil biologist; Ira G. McBeth, physiologist; F. M. Scales, assistant soil mycologist; R. C. Wright, assistant physiologist; F. L. Goll, Lewis T. Leonard, and N. R. Smith, scientific assistants.

**Soil Fertility Investigations.** OSWALD SCHREINER, *Biochemist in charge.*

This office studies the causes of and remedy for infertility in certain soils, whether natural or arising from improper methods of cultivation and cropping. It separates, identifies, and studies certain organic substances found in unproductive soils, and corrects their evil effects by mechanical handling, by the use of fertilizers, and by other methods available to the farmer.

*Scientific staff.*—Bailey E. Brown, Joshua J. Skinner, Elbert C. Lathrop, biochemists; Alfred P. Dachnowski, physiologist; Fred R. Reid, Louis J. Gillespie, and Edward H. Walters, Louis E. Wise, assistant biochemists; James H. Beattie and Henry Winckelmann, scientific assistants; Albert M. Jackson, laboratory aid.

**Acclimatization and Adaptation of Crop Plants; Cotton Breeding.** O. F. COOK, *Bionomist in charge.*

These investigations have special reference to the acclimatization in the South and Southwest of Central American varieties of cotton, corn, and other tropical crop plants. The breeding of cottons for the boll-weevil territory is a special feature.

*Scientific staff.*—G. N. Collins and H. Pittier, botanists; D. A. Saunders, plant breeder; P. V. Cardon, assistant agronomist; W. E. Townsend, assistant agriculturist; C. B. Doyle and R. M. Meade, scientific assistants; G. B. Gilbert, J. H. Kempton, C. G. Marshall, Guy S. Meloy, and Walton G. Wells, assistants in crop acclimatization.



### **Drug-Plant, Poisonous-Plant, Physiological, and Fermentation Investigations.** RODNEY H. TRUE and W. W. STOCKBERGER, *Physiologists in charge.*

This branch of the bureau studies the commercial culture of drug-producing crops and tea; stock-poisoning plants and methods of preventing the losses caused by them; and plant physiology and fermentation.

*Scientific staff.*—William Crocker, Heinrich Hasselbring, W. Van Fleet, and Lon A. Hawkins, physiologists; Otis F. Black, H. H. Bunzel, Frank Rabak, and A. F. Sievers, chemical biologists; S. L. Jodidi, organic chemist; W. W. Eggleston, assistant botanist; T. B. Young, assistant agronomist; S. C. Hood, E. H. Kellogg, and James Thompson, scientific assistants; Rodney B. Harvey, microanalyst; G. Archie Russell, expert; James W. Kelly, laboratory technician.

### **Grain Standardization.** J. W. T. DUVEL, *Technologist in charge.*

These investigations relate to the harvesting of grain and its proper preparation for market; its handling, storing, and grading on the farm, at country elevators, and in the terminal markets; and its handling by transportation companies. The purpose is to fix definite standards for the grading of grain, so as to encourage the use of improved methods of handling and storing grain, and the production of grain of better quality. This work is conducted at Washington, D. C., and at branch laboratories located at Baltimore, Md.; Chicago, Ill.; Decatur, Ill.; Fargo, N. Dak.; Kansas City, Mo.; New Orleans, La.; and Portland, Oreg.

*Scientific staff.*—E. G. Boerner, G. H. Baston, jr., H. J. Besley, W. P. Carroll, C. L. Cannon, J. H. Cox, Laurel Duval, L. M. Jeffers, R. C. Miller, E. L. Morris, Philip Rothrock, C. A. Russell, L. M. Thomas, J. H. Shollenberger, L. J. Vandracek, F. B. Wise, and Malon Yoder, assistants; Joe D. Morgan and Stephen A. Regan, scientific assistants.

### **Cereal Investigations.** MARK ALFRED CARLETON, *Cerealists in charge.*

This work deals with the culture, adaptation, improvement, and uses of cereal crops, the prevention of diseases affecting cereals, the cultivation and breeding of flax for seed purposes, including a study of flax diseases, and the production and improvement of broom corn.

*Scientific staff.*—Carleton R. Ball, C. E. Chambliss, H. V. Harlan, C. E. Leighty, and C. W. Warburton, agronomists; Stephen Anthony, technologist in barley investigations; E. L. Adams, L. C. Aicher, C. H. Clark, J. Mitchell Jenkins, and F. A. Kiene, jr., assistant agronomists; John B. Sieglinger, assistant agriculturist; H. B. Humphrey, pathologist; A. A. Potter, assistant pathologist; John F. Ross and D. E. Stephens, farm superintendents; F. R. Babcock, Ross R. Childs, J. A. Clark, N. C. Donaldson, A. D. Ellison, Victor H. Florell, G. H. Godfrey, Chas. W. Hungerford, J. W. Jones, J. H. Martin, J. D. Morrison, John H. Parker, B. E. Rothgeb, R. W. Smith, T. R. Stanton, and Theodore Stoa, scientific assistants; G. A. McMurdo, assistant; L. R. Breithaupt, L. C. Burnett, W. T. Craig, A. G. Johnson, M. A. McCall, and F. J. Piemeisel, agents.

### **Corn Investigations.** C. P. HARTLEY, *Physiologist in charge.*

These investigations are planned to determine the fundamental principles of corn improvement, adaptation, culture, and use that influence the quantity, quality, and profitableness of corn production. They are conducted on the farms of interested corn growers throughout the United States and the facts determined support the educational work with corn as conducted by corn clubs and demonstration agents.

*Scientific staff.*—Ernest B. Brown, physiologist; Curtis H. Kyle, assistant physiologist; J. G. Willier, Fred D. Richey, George J. Burt, Henry M. Steece, H. Howard Biggar, John M. Gilman, and Charles D. Bennett, scientific assistants; J. M. Hammerly and H. S. Garrison, assistants.

### **Tobacco and Plant Nutrition Investigations.** W. W. GARNER, *Physiologist in charge.*

The tobacco work has to do with the improvement of tobacco by hybridization and selection, the improvement of methods of growing and handling the crop, the combating of diseases, and the general study of the tobacco industry. Experiments and demonstrations in the growing of tobacco in rotation with farm crops are features of the work.

The plant-nutrition studies relate to some of the broad problems concerned in the growth and development of crop plants as affected by nutrition.

*Scientific staff.*—E. H. Mathewson and G. W. Harris, crop technologists; Otto Olson, E. G. Beinhart, D. E. Brown, W. M. Lunn, E. G. Moss, R. H. Milton, James P. Young, and James O. Evans, assistants in tobacco investigations; Charles W. Bacon and H. A. Allard, assistant physiologists; Charles L. Foubert, scientific assistant; Charles S. Ridgway, assistant in botanical laboratory work.

### **Agricultural Technology.** N. A. COBB, *Technologist in charge.*

These investigations deal with the improvement of technological methods in crop production; the measurement of cotton staple, technological ginning investigations, and studies of free-living and plant-infesting nematodes.

*Scientific staff.*—W. E. Chambers, technologist; Albert Mann, plant morphologist; Emil G. Arzberger, pathologist.

**Paper-Plant Investigations.** Directed by C. J. BRAND, *Chief, Office of Markets and Rural Organization.*

This work has to do with the testing of plants believed to be suitable for paper manufacture.

*Scientific staff.*—Jason L. Merrill, paper plant chemist; George A. Stuart, assistant in paper-plant investigations.

**Fiber-Plant Investigations.** L. H. DEWEY, *Botanist in charge.*

These investigations deal with the study of fiber plants likely to prove of value in the United States and the encouragement of fiber-plant industries.

*Scientific staff.*—Frank C. Miles, scientific assistant.

**Biophysical Investigations.** LYMAN J. BRIGGS, *Biophysicist in charge.*

This office studies physical problems connected with the work of the Bureau of Plant Industry. Attention is chiefly directed at present to biophysical problems in dry-land agriculture, the water requirements and nutrition of crop plants, the influence of the physical environment on crop growth, and investigations in electroculture.

*Scientific staff.*—C. A. Jensen, assistant in plant malnutrition; J. O. Belz, assistant; J. W. McLane and Julia R. Pearce, laboratory assistants; A. B. Campbell, mechanical assistant.

**Seed-Testing Laboratories.** EDGAR BROWN, *Botanist in charge.*

These laboratories examine samples of commercial seeds for the presence of adulteration and conduct a general propaganda in the interest of pure seed for the farmer. The work is performed both in Washington, D. C., and at cooperative laboratories in the field.

*Scientific staff.*—F. H. Hillman, assistant botanist; W. L. Goss, George T. Harrington, Emma F. Sirrine, Bertha C. Hite, Anna M. Lute, Norma Waddle, Helen H. Henry, Cora Jacobs, Etta O. Gilbert, Jessie A. Lee, Grace M. Cole, Rachel E. Holmes, Mary L. Stott, and Emma S. Doyle, scientific assistants.

**Forage Crop Investigations.** CHARLES V. PIPER, *Agrostologist in charge.*

The forage crop investigations include methods of production; development and dissemination of new valuable varieties; extension of forage crops into sections where they are adapted but are grown only to a limited extent; and cooperation in the introduction and extension of new crops.

*Scientific staff.*—David Griffiths, agriculturist; R. A. Oakley, A. J. Pieters, H. N. Vinall, and Lyman Carrier, agronomists; Roland McKee, assistant agrostologist; Samuel M. Tracy, assistant agriculturist; M. W. Evans, W. J. Morse, A. B. Cron, H. R. Cates, Samuel Garver, R. W. Edwards, Robert E. Getty, L. W. Kephart, Leroy Moomaw, Harvey L. Westover, H. S. Coe, Hiram R. Reed, and Alma R. White, scientific assistants.

**Alkali and Drought Resistant Plant Breeding Investigations.** T. H. KEARNEY, *Physiologist in charge.*

This office investigates the alkali resistance of crop plants; develops, by breeding and selection, strains of field crops which will be more resistant to drought than the varieties now obtainable; and studies the physiology of drought resistance. The work is conducted in close cooperation with other branches of the bureau concerned with the upbuilding of agriculture in the West and Southwest.

*Scientific staff.*—H. L. Shantz and A. C. Dillman, physiologists; R. L. Piemeisel and Florian A. Cajori, scientific assistants.

**Economic and Systematic Botany.** FREDERICK V. COVILLE, *Botanist in charge.*

This office maintains economic collections of cultivated plants and makes systematic studies of grasses and other economic plants, compiles information on native plants for publication, tests wild and little-known plants, and experiments with a view to the improvement of the grazing areas on the public lands.

*Scientific staff.*—A. S. Hitchcock, systematic agrostologist; W. E. Safford, economic botanist; P. L. Ricker and Ivar Tidestrom, assistant botanists; Agnes Chase, scientific assistant; Alice Henkel, assistant.

**Dry-Land Agriculture Investigations.** E. C. CHILCOTT, *Agriculturist in charge.*

This office studies proper cultural methods for the growing of crops in the semiarid regions of the West, especially in that portion known as the Great Plains area. The objects are to determine the best methods of soil preparation and crop rotation for the conservation of moisture and the maintenance of humus in the soil.

*Scientific staff.*—J. S. Cole, W. W. Burr, traveling field assistants; W. A. Peterson, J. M. Stephens, O. J. Grace, W. D. Griggs, F. L. Kelso, J. E. Mundell, and E. F. Chilcott, farm superintendents; C. B. Brown, A. L. Hallsted, J. H. Jacobson, L. N. Jensen, O. R.



Mathews, G. W. Morgan, A. J. Ogaard, W. M. Osborn, M. Pfaender, J. T. Sarvis, H. G. Smith, R. S. Towle, J. C. Thysell, Leroy D. Willey, Joseph B. Kuska, and Arthur E. Seamans, assistants; L. L. Zook, physiologist; A. W. Schulz, scientific assistant; Chas. H. Ruzika, agent; Robert Wilson, assistant in dry-land arboriculture.

**Western Irrigation Agriculture.** C. S. SCOFIELD, *Agriculturist in charge.*

The work is concerned with the development of profitable agriculture on the lands to be placed under irrigation in the western United States, and also with the testing of various crops suited for growth under irrigation. The work is conducted in cooperation with a number of the investigational offices of the bureau.

*Scientific staff.*—F. B. Headley, assistant agriculturist; Beyer Aune, R. E. Blair, Daniel Hansen, S. H. Hastings, and Fritz Knorr, farm superintendents; Ernest W. Curtis, scientific assistant; J. A. Holden and Clarence R. Letteer, assistants in dry-land agriculture; C. E. Peterson, assistant in dry-land arboriculture; H. K. Dean, agriculturist, irrigated field crops.

**Sugar-Beet Investigations.** C. O. TOWNSEND, *Pathologist in charge.*

This office investigates all phases of sugar-beet growing, including cultural methods, breeding, diseases, and all other limiting factors. It also studies the relation of the sugar-beet crop to all other activities on the farm, including crop rotation, stock raising, labor, markets, etc., so far as these factors have any bearing on the production of sugar beets; the culture and diseases of sugar cane with relation to the production of table sirup.

*Scientific staff.*—George F. Miles, pathologist; W. W. Tracy, jr., technologist; P. A. Yoder, sugar cane technologist; Samuel B. Nuckols, assistant agriculturist; Wm. H. Burns, Joe G. Lill, and E. C. Rittue, assistants; L. E. Longley, scientific assistant; Julian K. Dale, junior chemist.

**Horticultural and Pomological Investigations.** L. C. CORBETT, *Horticulturist in charge.*

These investigations are concerned with the improvement of methods of growing, handling, shipping, and sorting perishable fruits and truck and related crops; landscape and vegetable gardening; floriculture, and related subjects. The work is subdivided into fruit-utilization investigations; fruit transportation and storage investigations; fruit-production investigations; viticultural investigations; nut-culture investigations; pomological breeding investigations, including the improvement of fruits by bud selection; miscellaneous investigations bearing on the development of the fruit industry; truck-crop investigations; landscape-gardening, floriculture, and miscellaneous horticultural investigations; potato investigations; fruit-history investigations; fruit-nomenclature investigations; and fruit-identification investigations.

*Scientific staff.*—C. P. Close, H. P. Gould, George C. Husmann, E. R. Lake, C. W. Mann, and H. J. Ramsey, pomologists; A. D. Shamel, physiologist; S. J. Dennis, refrigeration technologist; D. N. Shoemaker, William Stuart, and H. C. Thompson, horticulturists; W. F. Wight, botanist; Chas. F. Clark, assistant agronomist; W. W. Tracy, sr., superintendent of testing gardens; F. L. Mulford, landscape gardener; H. M. Conolly and W. V. Shear, assistant horticulturists; C. S. Pomeroy and Leo B. Scott, assistant pomologists; C. A. Reed, nut culturist; C. G. Patten, expert; William E. Mosher, assistant in refrigeration; H. S. Bird, Margaret Connor, George M. Darrow, Charles T. Dearing, George W. Dewey, C. L. Dyer, George L. Fischer, W. F. Fletcher, P. M. Lombard, Edward L. Markell, Fred E. Miller, W. C. Quick, V. W. Ridley, Elmer Snyder, Edw. D. Vosbury, D. D. Ward, scientific assistants; F. L. Husmann, viticultural superintendent.

**Experimental Gardens and Grounds.** E. M. BYRNES, *Assistant in charge.*

This office is charged with the care and ornamentation of the department grounds, the maintenance of greenhouses and plant collections, and the propagation of plants for experimental and other purposes. Experimental work with florists' crops is also being conducted in the greenhouses.

**Congressional Seed Distribution.**

This work consists of the securing, packeting, and mailing of the quantities of vegetable, flower, and other seeds and plants necessary for congressional distribution, as well as the testing, propagation, and distribution of improved seeds of various crops.

*Staff.*—R. A. Oakley, agronomist in charge; Oliver F. Jones, executive clerk; J. E. W. Tracy, assistant superintendent of testing gardens; H. E. Juenemann, in charge bulb-testing gardens, Bellingham, Wash.; R. W. J. Vallengoed, plant propagator.

**Foreign Seed and Plant Introduction.** DAVID FAIRCHILD, *Agricultural Explorer in charge.*

This office secures promising new seeds and plants, both by agricultural exploration and by correspondence, and these are tested at the plant-introduction gardens or through

cooperation with other offices, experiment stations, experimenters, and private individuals. Investigations in plant propagation and in the development of certain plant industries are features of the work.

*Scientific staff.*—P. H. Dorsett, plant introducer, in charge of plant-introduction field stations; Peter Bisset, plant introducer, in charge of foreign plant distribution; Frank N. Meyer and Wilson Popenoe, agricultural explorers; George W. Oliver, plant breeder and propagator; H. C. Skeels, Stephen C. Stuntz, and R. A. Young, botanical assistants; Allen M. Groves and Nathan Menderson, assistants in plant introduction; Glen P. Van Eseltine, assistant in botanical laboratory work; Robert L. Beagles, farm superintendent, in charge of plant-introduction field station, Chico, Cal.; Edward Simmonds, garden and field station superintendent, in charge of plant-introduction field station, Miami, Fla.; John M. Rankin, assistant farm superintendent, in charge of Yarrow plant-introduction field station, Rockville, Md.; Edward Goucher, plant propagator, at plant-introduction field station, Rockville, Md.; and Henry Klopfer, plant propagator, at plant-introduction field station, Chico, Cal.

**Arlington Experimental Farm.** Directed by L. C. CORBETT, *Horticulturist*.

The Arlington Farm is the field laboratory at Washington for the Bureau of Plant Industry, as well as for other bureaus of the department. Widely varying field tests are conducted on the farm.

*Staff.*—E. C. Butterfield, assistant horticulturist in general charge; J. H. Criswell, assistant superintendent.

**Demonstrations on Reclamation Projects.** F. D. FARRELL, *Agriculturist in charge*.

This office conducts demonstration work with individual farmers and farmers' organizations on the Government reclamation projects, for the purpose of assisting in the establishment of specific agricultural industries suited to the conditions on these projects.

*Scientific staff.*—L. E. Cline, Harry A. Ireland, Roy P. Bean, Carl Christopher, Don G. Magruder, E. F. Rinehart, Paul S. Jones, and Harry A. Lindgren, agriculturists; Charles S. Jones, assistant.

#### BUREAU OF CHEMISTRY.

*Chief*, CARL L. ALSBERG; *Assistant Chiefs*, R. L. EMERSON and W. P. JONES; *Chief Clerk*, F. B. LINTON.

The Bureau of Chemistry is concerned primarily with questions of agricultural chemistry of public interest, analytical work and investigations under the food and drugs act, and other chemical investigations referred to it by other branches of the Government service.

*Detailed to Chief.*—J. F. Brewster, L. H. Chernoff, A. S. Eastman, G. A. Geiger, C. O. Johns, D. B. Jones, H. J. Morgan, H. E. Patten, H. Runkel, and H. E. Woodward.

**Office of General Administration.** R. L. EMERSON, *Assistant Chief, in charge*.

F. C. Blanck, A. S. Mitchell, and S. H. Ross, assistants; A. E. Draper, librarian; C. Conover,<sup>1</sup> editor; J. G. Coleman and S. A. Postle, executive clerks.

**State Cooperative Food and Drug Control.** J. S. ABBOTT, *Chemist in charge*.

This office endeavors to promote close and cordial cooperation between State and Federal officials charged with the enforcement of all food and drug laws, works out policies for such cooperation, and seeks to unify and harmonize the work and policies of such officials.

*Assistant.*—H. S. Bailey.

**Office of Medical Expert.** M. W. GLOVER, *Surgeon, U. S. P. H. S., in charge*.

This office has to do with the preparation of cases dealing with violations of the provisions of the Sherley amendment.

*Assistants.*—T. C. Merrill and F. P. Morgan.

**Animal Physiological Chemical Laboratory.** F. C. WEBER, *Chemist in charge*.

The work in this laboratory includes metabolism and feeding experiments with foods, organic and inorganic compounds, and various carbohydrates; a complete study of infant foods and of the application of chemical methods to the determination of deterioration of animal foods; investigations in the canning of sardines and other marine products; experiments on the destruction of fly larvæ in their breeding places; and experimental work to improve the methods of analysis ordinarily employed in physiological chemistry.

*Scientific staff.*—H. W. Houghton and J. B. Wilson, assistants.

**Carbohydrate Laboratory.** C. S. HUDSON, *Chemist in charge*.

This laboratory analyzes sugars, sirups, molasses, honeys, jellies, jams, preserves, infant foods, confectionery, and similar substances in connection with the enforcement of the

<sup>1</sup> Acting.

food and drugs act. Analyses are also made of all samples of sugars, sirups, and molasses bought by the General Supply Committee. The laboratory investigates the manufacturing processes used in the production of raw and refined sugar and molasses, maple sugar, sirups from cane, maple, and sorghum, and confectionery and jellies. Improved methods of chemical analysis are studied, and also the characteristic constants by which pure carbohydrates are distinguished.

*Scientific staff.*—D. H. Brauns, J. K. Dale, T. S. Harding, J. M. Johnson, F. B. La Forge, S. F. Sherwood, M. N. Straughn, and E. Yanovsky, assistants.

**Color Laboratory.** H. D. GIBES, *Chemist in charge.*

The various projects on the study of color substances which have been in progress in this bureau for some time are to be concentrated in this laboratory.

*Scientific staff.*—A. M. Doyle and R. R. Williams, assistants.

**Dairy Laboratory.** G. E. PATRICK, *Chemist in charge.*

The dairy laboratory examines dairy products of every description and studies methods for making such examinations. A large part of the work at present is the examination of interstate samples of milk, butter, cheese, condensed milks, dried milks, malted milks, lactated foods, ice cream, and other dairy products to determine questions as to their adulteration and misbranding under the food and drugs act. Samples of imported dairy products are examined, and also samples of dairy products submitted by the General Supply Committee of the Government. Samples from other sources are analyzed when such work promises to be of public benefit. Research work is also done.

*Scientific staff.*—O. L. Evenson, L. W. Ferris, and J. T. Keister, assistants.

**Drug Division.** L. F. KEBLER, *Chief.*

This division studies the properties, composition, and quality of drugs and medicinal preparations, and analyzes samples of such products taken in the enforcement of the food and drugs act. It also studies methods which may lead to more satisfactory analytical processes, especially for testing potent plant drugs and products derived from them.

*Scientific staff.*—V. K. Chesnut and W. S. Hubbard, assistants. Drug-inspection laboratory: —, chief; H. E. Buchbinder and S. Palkin, assistants. Synthetic drug products laboratory; W. O. Emery, chief; G. C. Spencer, C. D. Wright, assistants. Essentials oils laboratory; E. K. Nelson, chief.

**Food Control Laboratory.** H. M. LOOMIS, *Chemist in charge.*

The food control laboratory supervises the inspection of food products (not including cattle feeds or dairy products) under the food and drugs act. This work includes the examination of analytical reports on official food samples, the consideration of cases prepared for citation or prosecution, handling of correspondence relating to cases, and to general questions arising under the food and drugs act as they relate to these products. Special studies are also made of the manufacture and production of food products, including work on analytical methods for the examination of these products, particularly in collaboration with the Association of Official Agricultural Chemists.

*Scientific staff.*—M. Boyle, S. Coopersmith, C. O. Dodge, M. J. Ingle, H. A. Lepper, H. S. Paine, J. I. Palmore, and E. L. P. Treuthardt, assistants.

**Food Investigation Laboratory.** —, *Chemist in charge.*

This laboratory conducts investigations that are necessary as a basis for the regulatory work in the food control. At the present moment the following problems are under investigation: The composition of American oils and fats; the effect of hydrogenation upon oils intended for use as food products; the composition of commercial generator vinegar and the changes taking place in the conversion of cider into vinegar; the exact determination of the heavy metals in foods; some essential oils and synthetic flavors and flavoring extracts prepared therefrom.

*Scientific staff.*—A. R. Albright, R. W. Balcom, L. B. Burnett, W. D. Collins, and E. G. Grab, assistants.

**Fruit and Vegetable Utilization Laboratory.** H. C. GORE, *Chemist in charge.*

This laboratory is investigating the utilization of surplus and cull fruits and vegetables. At present apples and potatoes are receiving the most attention. Much of this work is in cooperation with the Bureau of Plant Industry.

*Scientific staff.*—F. T. Anderson, R. H. Kent, and M. G. Mastin, assistants.

**Grain Dust Explosion Investigations.** D. J. PRICE, *Engineer in charge.*

Investigations are made of the causes of grain dust explosions in threshers, mills, and elevators with the view of determining the most effective means of preventing such explosions. The work is done in cooperation with the Office of Public Roads and Rural Engineering, the Bureau of Mines, Department of the Interior, and Pennsylvania State College.

*Scientific staff.*—H. H. Brown, Assistant



**Leather and Paper Laboratory.** F. P. VEITCH, *Chemist in charge.*

This laboratory conducts investigations of tannins and tanning materials, their effects upon the strength and properties of leather, and processes involved in their production; problems relating to the production of leather; the qualities of papers and their fitness for use in the Department of Agriculture and other departments of the Government which may request such investigations; the production of paper; the nature and uses of turpentine and resins, together with improved processes of production; the destructive distillation of wood and methods of improving the quality and quantity of the products; the grading, weighing, and handling of naval stores, and preparation of definite type samples therefor. Turpentine and rosin are examined under the food and drugs act. Papers, leathers, turpentine, resins, and textiles are examined for the departments of the Government requesting such work, and specifications are prepared for the purchase of these articles.

*Scientific staff.*—M. G. Donk, R. W. Frey, V. E. Grotlisch, H. P. Holman, E. O. Reed, J. S. Rogers, C. F. Sammet, and C. F. Speh, assistants.

**Microbiological Laboratory.** CHARLES THOM, *Mycologist in charge.*

This laboratory consists of a research section and a regulatory section and works upon the relation of molds and bacteria to food products. Its research projects cover studies of yeasts, oysters, sauerkraut, canned goods, deterioration of cereal products and of forage, classification and activities of bacteria and molds, and the development and standardization of methods applicable to biological inspection work. Its regulatory staff conducts the bacteriological inspection of milk, oysters, gelatine, table waters, tomato products, canned foods, miscellaneous inspection samples in which spoilage is suspected, and samples submitted by the Insecticide and Fungicide Board.

*Scientific staff.*—Research section: Charles Thom, mycologist in charge; V. Birckner and L. A. Round, assistants. Regulatory section: S. K. Farrar, R. W. Lamson, E. Lefevre, W. R. North, jr., Maud Mason Obst, L. P. Shippen, and D. Soletsky, assistants.

**Microchemical Laboratory.** B. J. HOWARD, *Microscopist in charge.*

This laboratory makes microscopical and microchemical studies of foods, drugs, cattle feed, paper and textile materials, miscellaneous agricultural products, etc. It also makes microscopical examinations of insecticides, and studies methods for their microscopical identification and estimation. Special attention is given to the histological study of fruits, spices, cereals, starches, and other agricultural products for the purpose of perfecting methods for detecting the adulteration of these products.

*Scientific staff.*—M. B. Church, G. L. Keenan, E. A. Read, A. E. Reinking, B. H. Silberberg, and C. H. Stephenson, assistants.

**Miscellaneous Division.** J. K. HAYWOOD, *Chief.*

This division comprises the insecticide and fungicide laboratory, a cattle food and grain investigation laboratory, and a trade wastes laboratory, and studies insecticides and fungicides, cattle foods, forage crops, grains, trade wastes, and certain hygienic problems, making analyses under the food and drugs act and the insecticide act, and performing such miscellaneous chemical work as may be referred to it. This division makes cooperative investigations of insecticides and fungicides for the Bureau of Entomology and Plant Industry and is engaged, with the latter bureau, in a number of cooperative studies of grain and forage crops. Much time is given to the investigation of new methods of analysis of insecticidal and fungicidal materials and to chemical investigations of insecticides and fungicides.

*Scientific staff.*—Cattle food and grain investigation laboratory: G. L. Bidwell, chemist in charge; C. E. Goodrich, J. B. Reed, P. H. Waldruff, and G. P. Walton, assistants. Insecticide and fungicide laboratory: C. C. McDonnell, chief; N. H. Borden, F. C. Cook, F. H. Eldred, J. J. T. Graham, E. L. Griffin, O. D. Knight, W. D. Lynch, R. N. Miller, W. J. Morgan, E. J. Nealon, R. C. Roark, and C. M. Smith, assistants. Trade wastes laboratory: Under J. K. Haywood, chief.

**Nitrogen Laboratory.** T. C. TRESCOT, *Chemist in charge.*

Nitrogen determinations for all laboratories of this bureau, as well as for many of the other bureaus of the department, are made in the nitrogen laboratory. Work in cooperation with the Association of Official Agricultural Chemists is also done, looking to the improvement of the methods for making these determinations.

**Organic Investigation Laboratory.** I. K. PHELPS, *Chemist in charge.*

This laboratory is conducting investigations in organic chemistry necessary in the enforcement of the food and drugs act. The chief problem engaging it at present is the development of chemical methods for the detection of deterioration and spoilage in foods.

*Scientific staff.*—H. W. Daudt, B. R. Jacobs, H. E. Palmer, and E. E. Smith, assistants.

**Pharmacognosy Laboratory.** A. VIEHOEVER, *Pharmacognosist in charge.*

This laboratory supervises the inspection of crude drugs under the food and drugs act. It investigates the chemical, physiological, and morphological characteristics of drugs and plants. It works on the improving of methods of drug analysis and on the establishing of standards for drugs and other plant products.

*Scientific staff.*—C. O. Ewing, assistant.

**Pharmacological Laboratory.** W. SALANT, *Pharmacologist in charge.*

This laboratory makes researches on the physiological action of poisonous substances occurring in food products and of drugs used as medicine, and physiological tests of drugs to ascertain the strength and purity of medicinal preparations found in the open market.

*Scientific staff.*—R. Bengis, B. S. Levine, and A. E. Livingston, assistants.

**Plant Chemical Laboratory.** J. A. LE CLERC, *Chemist in charge.*

The plant chemical laboratory studies the chemistry of plants, with respect especially to climate and environment, both in the greenhouse and in the field; changes taking place in grain during germination, malting, and storage; and milling and breadmaking. Work is also done in collaboration with the Bureau of Plant Industry on problems connected with plant physiological chemistry.

*Scientific staff.*—L. H. Bailey, J. F. Breazeale, J. Davidson, W. O. Gordon, H. A. Piper, and H. L. Wessling, assistants.

**Water Laboratory.** W. W. SKINNER, *Chemist in charge.*

This laboratory studies the composition of waters, brines, salts, and related products and analyzes samples of such products taken in the enforcement of the food and drugs act. It investigates sanitary problems relating to the production of bottled waters and technical problems in the purification of water, salt, etc.

*Scientific staff.*—W. F. Baughman, F. B. Furber, and J. W. Sale, assistants.

**Field Investigation Service.****Citrus By-Products Laboratory.** E. M. CHACE, *Chemist in charge.*

This laboratory directs its attention to devising methods for the utilization of cull oranges and lemons. With this in view, methods are being studied for the manufacture of citric acid, oils of lemon and of orange, concentrated orange juice, and orange vinegar.

*Scientific staff.*—C. G. Church, R. H. Kellner, C. P. Wilson, and C. O. Young, assistants.

**Food Research Laboratory.** M. E. PENNINGTON, *in charge.*

The food research laboratory makes chemical, bacteriological and histological studies of foods preserved by low temperatures. Milk, poultry, eggs, and fish have been the objects of investigation, with reference to their decomposition and putridity during preparation, transportation, storage, and marketing, in connection with the food and drugs act. A special investigation of frozen and dried eggs and egg products has been carried on, chiefly in the egg-breaking establishments, and with the cooperation of the industry; a similar investigation of fish, both fresh and frozen, is now being conducted.

*Scientific staff.*—H. C. Albin, A. W. Broomell, E. D. Clark, E. H. Grant, A. D. Greenlee, E. C. Heinsohn, N. Hendrickson, J. S. Hepburn, M. K. Jenkins, H. A. McAleer, H. C. Pierce, C. M. Sherwood, H. L. Shrader, and E. Witmer, assistants.

**Field Regulatory Service.****Food and Drug Inspection.**

The country has been divided into three food and drug inspection districts, Eastern, Central, and Western, each with a chief in charge, who has immediate supervision of the branch laboratories and the inspectors within his district. The eastern inspection district (W. G. Campbell,<sup>1</sup> Washington, D. C.) includes the laboratories in Boston (E. J. Shanley<sup>2</sup>), Buffalo (L. Patton<sup>2</sup>), New York (R. E. Doolittle<sup>2</sup>), Philadelphia (C. S. Brinton<sup>2</sup>), San Juan (B. B. Wilcox<sup>3</sup>), Savannah (W. J. McGee<sup>2</sup>), and Washington (A. L. Sullivan<sup>2</sup>). The central inspection district (L. M. Tolman,<sup>1</sup> Chicago) includes the laboratories in Chicago (G. W. Hoover<sup>2</sup>), Cincinnati (L. B. Forst<sup>2</sup>), Minneapolis (E. H. Goodnow<sup>2</sup>), New Orleans (F. W. Liepsner<sup>2</sup>), and St. Louis (D. B. Bisbee<sup>2</sup>). The western inspection district (B. R. Hart,<sup>1</sup> San Francisco) includes the laboratories in Denver (R. S. Hiltner<sup>2</sup>), Honolulu (A. W. Hansen<sup>2</sup>), San Francisco (R. W. Hilt<sup>2</sup>), and Seattle (A. L. Knisely<sup>2</sup>). There is a corps of 45 food and drug inspectors in the field. The taking of samples for analysis constitutes their chief duty, though special investigations in collaboration with the chemists are also made, and factories are inspected in which

<sup>1</sup> Chief.<sup>2</sup> Chemist in charge.<sup>3</sup> Acting chemist in charge.

food and drugs are prepared. Examinations of samples are made for other branches of the Government service as may be necessary.

**State Officials Authorized to Collect Samples Under the Food and Drugs Act.**

*Alabama*.—J. A. Wade, Commissioner of Agriculture and Industries, Montgomery. *Arizona*.—Charles A. Meserve,<sup>1</sup> Director of State Laboratory, University of Arizona, Tucson. *Arkansas*.—Morgan Smith, State health officer, Little Rock. *California*.—E. J. Lea, University of California, Berkeley. *Colorado*.—John Lynch, State Board of Health, Denver. *Connecticut*.—Frank H. Stadtmueller, Dairy and Food Commissioner, Capitol Building, Hartford. *Delaware*.—A. E. Frantz, State Board of Health, Wilmington. *District of Columbia*.—William C. Woodward, Health Department, Washington. *Florida*.—W. A. McRae, Commissioner of Agriculture, Tallahassee. *Georgia*.—J. D. Price, Department of Agriculture, Atlanta. *Idaho*.—John K. White, Dairy, Food, and Sanitary Commissioner, Boise. *Illinois*.—W. Scott Matthews, Food Commission, 1627 Manhattan Building, Chicago. *Indiana*.—H. E. Barnard,<sup>1</sup> State Board of Health, Statehouse, Indianapolis; W. J. Jones, jr.,<sup>2</sup> Purdue University, Lafayette. *Iowa*.—W. B. Barney, Dairy and Food Commission, Des Moines. *Kansas*.—S. J. Crumrine, State Board of Health, Topeka; L. A. Fitz,<sup>2</sup> State Agricultural College, Manhattan. *Kentucky*.—R. M. Allen, Food and Drug Department, Agricultural Experiment Station, Lexington. *Louisiana*.—Oscar Dowling, State Board of Health, New Orleans. *Maine*.—Wm. T. Guptill, Department of Agriculture, Augusta. *Massachusetts*.—Allan J. McLaughlin, Commissioner of Health, Boston; Philip H. Smith,<sup>2</sup> Agricultural Experiment Station, Amherst. *Michigan*.—James W. Helme, Dairy and Food Department, Lansing; A. J. Patten,<sup>2</sup> Agricultural Experiment Station, East Lansing. *Minnesota*.—J. J. Farrell, Dairy and Food Department, St. Paul. *Mississippi*.—W. F. Hand,<sup>1</sup> Agricultural and Mechanical College, Agricultural College. *Missouri*.—F. H. Fricke, Food and Drug Department, La Salle Building, St. Louis. *Montana*.—W. F. Cogswell, Department of Public Health, Helena. *Nebraska*.—Clarence E. Harman, Food, Drug, Dairy, and Oil Commission, Lincoln. *Nevada*.—Sanford C. Dinsmore,<sup>1</sup> Agricultural Experiment Station, Reno. *New Hampshire*.—Irving A. Watson, State Board of Health, Concord. *New Jersey*.—R. B. Fitz-Randolph,<sup>1</sup> State Board of Health, Trenton; C. S. Cathcart, Agricultural Experiment Station, New Brunswick. *New York*.—Chas. S. Wilson, Department of Agriculture, Albany. *North Carolina*.—W. A. Graham, Department of Agriculture, Raleigh. *North Dakota*.—Edwin F. Ladd,<sup>1</sup> Agricultural Experiment Station, Agricultural College. *Ohio*.—T. L. Calvert, Dairy and Food Department, Columbus. *Oklahoma*.—John W. Duke, Commissioner, Department of Public Health, Oklahoma City; F. M. Gault,<sup>2</sup> Board of Agriculture, Oklahoma City. *Oregon*.—J. D. Mickle, Dairy and Food Commission, 510 Worcester Building, Portland. *Pennsylvania*.—James Foust, Department of Agriculture, Harrisburg. *Porto Rico*.—W. F. Lip-pitt, Service of Sanitation, P. O. Box 1108, San Juan. *Rhode Island*.—F. A. Jackson, Room 21, Statehouse, Providence. *South Carolina*.—E. J. Watson, Department of Agriculture, Commerce, and Industries, Statehouse, Columbia. *South Dakota*.—Guy G. Frary, Department of Food and Drugs, Vermilion. *Tennessee*.—H. L. Eskew, Department of Food and Drugs, Nashville. *Texas*.—R. H. Hoffman, jr., Food and Drug Department, Austin; B. Youngblood,<sup>2</sup> Agricultural Experiment Station, College Station. *Utah*.—H. C. Smith, Dairy and Food Department, Salt Lake City. *Vermont*.—Charles F. Dalton, State Board of Health, 184 Church Street, Burlington. *Virginia*.—Benj. L. Purcell, Department of Agriculture and Immigration, Richmond. *Washington*.—J. J. Higgins, Department of Agriculture, Olympia. *Wisconsin*.—H. L. Russell,<sup>2</sup> Agricultural Experiment Station, Madison. *Wyoming*.—Maurice Groshon, Dairy, Food, and Oil Department, Cheyenne.

**BUREAU OF SOILS.**

*Soil Physicist and Chief of Bureau*, MILTON WHITNEY; *Chief Clerk*, A. G. RICE.

The Bureau of Soils investigates the relation of soils to climate and organic life; studies the texture and composition of soils in field and laboratory; maps the soils; studies the cause and means of preventing the rise of alkali in the soils of irrigated districts, and the relations of soils to seepage and drainage conditions.

The Bureau investigates the domestic resources for fertilizers, studies the location, occurrence, and amount of raw materials that can be utilized, investigates the occurrence and supply of materials entering fertilizers, and carries on investigations on the development and improvement of new kinds of fertilizing material.

The bureau prepares annually the report of the Field Operations of the Bureau of Soils, which contains a detailed description of the soils and of the agricultural con-

<sup>1</sup> Authorized to collect samples by virtue of appointment as collaborating chemist.

<sup>2</sup> Authorized to collect samples of feeds and feeding stuffs.



ditions of the various areas surveyed, points out the present use of the soils, and discusses the possible changes and improvements in crops and methods of cultivation. Large-scale lithographic maps showing the distribution of the different kinds of soils accompany each report.

**Chemical Investigations.** E. C. SHOREY, *Scientist in charge.*

In these laboratories are investigated the chemical properties and composition of soil types, the nature and occurrence of soil minerals, the chemical composition of the soil solution, and the chemical properties of soils in their relation to formation, texture, and productivity. Routine work of a chemical nature in connection with the Soil Survey and other divisions of the bureau and other offices and bureaus of the department is also carried on.

*Scientific staff.*—J. A. Cullen, Paul J. Fox, W. H. Fry, William Hazen, C. F. Miller, W. O. Robinson, J. G. Smith, J. P. Schroeder, and L. A. Steinkoenig, scientists; Sanders M. Johnson, laboratory helper.

**Physical Investigations.** R. O. E. DAVIS, *Scientist in charge.*

In the physical laboratories investigations of the physical properties of the soil are carried on and a study made of their economic bearing; the moisture relations, aeration, heat conductivity, texture, and other physical properties are investigated in their relation to soil productivity; physical and mechanical analyses are made of soil types for the Soil Survey parties; and apparatus for field parties and for other divisions of the bureau is constructed and tested.

*Scientific staff.*—J. W. Bomboy, C. J. Crawley, L. H. Greathouse, L. B. Olmstead, and W. B. Page. Benjamin A. Judkins, laboratory helper.

**Investigations of Fertilizer Resources.** FREDK. W. BROWN, *in charge.*

Investigations are made into the fertilizer resources of the United States with a view to discovering new sources of fertilizer materials and to utilizing for fertilizers many waste products; improvement in existing methods of manufacture and the study of new methods are carried out.

*Scientific staff.*—H. Bryan, J. N. Carothers, C. C. Fletcher, R. F. Gardiner, J. R. Lindemuth, A. R. Merz, W. J. O'Brien, W. H. Ross, J. W. Turrentine, and W. H. Waggaman. C. B. Kernan, plumber's helper.

**Soil Survey.** CURTIS F. MARBUT, *Scientist in charge.*

The work of the Soil Survey includes the study of the field characteristics of soils, the formulation of definitions and descriptions for individual soil units on the basis of their field characteristics, the identification of the various soil units thus defined, and the determination of their distribution area, relationships, and agriculture in the United States. The work is carried on mainly by the detailed study of small unit areas such as counties and experiment-station farms, in many cases in cooperation with various State organizations.

*Scientific staff.*—Inspectors: Southern division, H. H. Bennett and W. E. Hearn; Northern division, W. E. McLendon and T. D. Rice; Western division, M. H. Lapham. Soil specialists: J. A. Bonsteel and J. E. Lapham. Soil surveyors: J. H. Agee, R. T. Allen, Mark Baldwin, Miles W. Beck, R. T. A. Burke, R. R. Burn, T. M. Bushnell, W. T. Carter, jr., W. B. Cobb, L. V. Davis, E. B. Deeter, Bruce B. Derrick, J. R. B. Dickey, J. E. Dunn, E. C. Eckmann, W. J. Geib, A. L. Goodman, E. C. Hall, R. B. Hardison, H. W. Hawker, L. C. Holmes, L. A. Hurst, F. Z. Hutton, G. B. Jones, R. C. Journey, J. A. Kerr, N. M. Kirk, A. E. Kocher, W. J. Latimer, H. G. Lewis, C. Lounsbury, E. T. Maxon, C. N. Mooney, T. M. Morrison, A. L. Patrick, W. A. Rockie, R. F. Rogers, L. R. Schoenmann, E. H. Smies, H. C. Smith, W. G. Smith, J. M. Snyder, Edmund H. Stevens, A. T. Strahorn, A. T. Sweet, A. E. Taylor, W. E. Tharp, B. W. Tillman, E. S. Vanatta, C. VanDuyne, J. O. Veatch, W. I. Watkins, E. B. Watson, and R. A. Winston, assistants in the soil survey.

**BUREAU OF ENTOMOLOGY.**

*Entomologist and Chief of Bureau*, L. O. HOWARD; *Entomologist and Acting Chief of Bureau in absence of Chief*, C. L. MARLATT; *Chief Clerk and Executive Assistant*, E. B. O'LEARY; *Librarian*, MABEL COLCORD.

The Bureau of Entomology studies insects with special reference to methods of control, experiments with the introduction of beneficial insects, makes tests with insecticides and insecticide machinery, and identifies insects sent in by inquirers. Field laboratories are located throughout the country.

**Investigations of Insects Affecting Southern Field Crops.** W. D. HUNTER, *in charge.*

These investigations deal with insect pests of cotton, tobacco, sugar cane, and rice, and are planned to reveal practical methods of control. Special attention is given to

the Mexican cotton-boll weevil and its parasitic enemies. An investigation of the Argentine ant is included.

*Scientific staff.*—W. D. Pierce, A. C. Morgan, J. L. Webb, T. E. Holloway, G. D. Smith, G. A. Runner, B. R. Coad, S. E. Crumb, J. D. Mitchell, and U. C. Loftin, entomological assistants; E. A. McGregor, E. R. Barber, R. W. Moreland, R. W. Howe, J. U. Gilmore, F. L. McDonough, and T. F. McGehee, scientific assistants.

**Cereal and Forage Insect Investigations.** ———, *in charge.*

The range caterpillar, the clover and alfalfa seed chalcid fly, wireworms, the corn leaf-aphis and the corn root-aphis, the alfalfa weevil, the fall army worm, the Hessian fly, the alfalfa gall midge, the Southern corn leaf-beetle, false wireworms, the alfalfa caterpillar, the chinch bug, white grubs, the western army cutworm, jointworms, the Southern corn rootworm, the cowpea curculio, and the clover and alfalfa root curculio are among the objects of these investigations. Seventeen field stations in cooperation with the farmer are distributed over the United States. Thus insects involved in the injury of all cereal and forage crops are investigated from an economic point of view throughout the entire area of distribution. In this way it is practicable to investigate any insect as affected by every variation of condition under which the farmer is obliged to contend with it in his own fields. Investigations are carried out as far as possible in the fields of the farmer, who is thus enabled to see what is being done.

*Scientific staff.*—G. I. Reeves, W. J. Phillips, J. A. Hyslop, E. O. G. Kelly, J. J. Davis, C. N. Ainslie, W. R. Walton, J. M. Aldrich, A. B. Gahan, V. L. Wildermuth, P. H. Timberlake, T. D. Urbahns, G. G. Ainslie, Philip Luginbill, R. N. Wilson, R. A. Vickery, H. E. Smith, Henry Fox, and P. B. Miles, entomological assistants; W. R. McConnell, C. W. Creel, E. H. Gibson, D. J. Caffrey, A. F. Satterthwait, L. P. Rockwood, T. R. Chamberlin, W. H. Larrimer, S. J. Snow, C. M. Packard, C. F. Turner, T. S. Wilson, A. H. Beyer, C. L. Scott, D. G. Tower, E. L. Barrett, W. T. Emery, F. H. Gates, C. C. Hill, W. E. Pennington, P. R. Myers, H. L. Parker, R. J. Kewley, L. J. Bower, G. W. Barber, J. S. Wade, L. J. Hogg, J. M. Langston, and F. A. Fenton, scientific assistants.

**Investigations of Insects Affecting Deciduous Fruits.** A. L. QUAINANCE, *in charge.*

Insects injurious to orchards, vineyards, and nut trees are studied in this work. Field laboratories are maintained in important fruit-growing regions, as in Pennsylvania, Michigan, Colorado, New Mexico, California, and Washington State. Experiments in the use of insecticides and spraying apparatus are made. The important projects include: Investigations of apple insects, as the codling moth, apple borers, and apple plant-lice; investigations of peach insects, as the peach borer, plum curculio, etc.; investigations of grape insects, as the grape Phylloxera, grape-berry moth, and miscellaneous grape insects; and investigations of nut insects, as those affecting the pecan and chestnut. Other projects are: Cranberry and small-fruit insect investigations; investigations of orchard insecticides and spraying machinery; control of deciduous-fruit insects by natural agencies; and deciduous-fruit nursery insect investigations.

*Scientific staff.*—E. W. Scott,<sup>1</sup> F. E. Brooks, J. B. Gill, A. C. Baker, R. L. Nougaret, J. F. Strauss, R. A. Cushman, W. F. Turner, H. B. Scammell, E. B. Blakeslee, W. B. Wood, E. H. Siegler, J. H. Paine, and F. L. Simanton, entomological assistants; Alden T. Speare, specialist in insect diseases; N. E. McIndoo, assistant in insect physiology; W. S. Abbott,<sup>1</sup> E. J. Newcomer, W. M. Davidson, A. J. Ackerman, R. J. Fiske, J. E. Dudley, jr.,<sup>1</sup> Dwight Isely, A. I. Fabis, H. J. Ingerson, H. K. Plack, and B. R. Leach, scientific assistants.

**Investigations of Insects Affecting Tropical and Subtropical Fruits.** C. L. MARLATT, *in charge.*

Insects affecting all tropical and subtropical fruits are subjects of research, including those affecting the various species of citrus, olive, figs, etc., and greenhouse pests. The principal methods of control are investigated, namely, fumigation with hydrocyanic-acid gas, trapping, and spraying with contact and poison insecticides. The important projects include: Citrous-fruit insect investigations in California, citrous-fruit insect investigations in Florida, citrous-fruit insect investigations in Louisiana, investigations of insects affecting tropical and subtropical plants in greenhouses, and studies of miscellaneous subtropical insects.

*Scientific staff.*—R. S. Woglum, W. W. Yothers, and J. D. Neuls, entomological assistants; E. R. Sasscer, J. R. Horton, H. L. Sanford, E. W. Rust, and A. D. Borden, scientific assistants.

**Investigations of the Mediterranean Fruit Fly.** C. L. MARLATT, *in charge.*

The life history of the fruit fly is studied in relation to its hosts, looking to means of control; the inspection and certification of pineapples and bananas for export from Hawaii to the mainland of the United States under Quarantine No. 13 and the general

<sup>1</sup> Employed in "Enforcement of Insecticide Act."



enforcement of this quarantine are attended to. Investigations of fruits likely to be imported into the United States from countries in which the fruit fly is known to occur are made as a basis for necessary quarantine and inspection of fruit entering the United States from such countries.

*Scientific staff.*—E. A. Back, entomological assistant; C. E. Pemberton, scientific assistant.

**Truck Crop and Stored Product Insect Investigations.** F. H. CHITTENDEN, *in charge.*

Field studies of insects affecting vegetable and truck crops are being made in nine States. Projected work includes the control of wireworms and root-maggots, cutworms, and insects injurious to onion, sugar beet, cabbage, cauliflower, cucumber, melons, beans, and peas. Studies of mushroom insects are under way. Among stored products attacked by insects (such as grains, prepared cereals, seeds, dried fruits, nuts, meat products, and various fabrics), a special study is being made of export flour from the Gulf region, with similar work on insects introduced from South American and other foreign ports. New remedies for various pests are being tried.

*Scientific staff.*—C. H. Popenoe, T. H. Jones, M. M. High, F. A. Johnston, and D. E. Fink, entomological assistants; J. E. Graf, H. O. Marsh, F. B. Milliken, C. F. Stahl, Frank R. Cole, A. B. Duckett, B. L. Boyden, R. E. Campbell, W. H. White, and Pauline M. Johnson, scientific assistants; W. M. Dovener, expert.

**Forest Insect Investigations.** A. D. HOPKINS, *in charge.*

Investigations are conducted in the field and laboratory of the scientific and economic problems in connection with insects affecting forest, shade, and ornamental trees and hardy shrubs and forest products, with an ultimate view to the development and perfection of practical methods of control and prevention. These investigations include studies of beneficial as well as destructive insects as they affect such trees and shrubs in life and in all subsequent stages of use. Permanent field stations are distributed in the principal forested areas of the country, to serve as headquarters and centers of their respective districts, for the investigation of local insect problems. Demonstrations of practical control methods are undertaken through correspondence with, or direct supervision of, private individuals or officers in charge of forests, wood lots, parks, or city shade trees and ornamental shrubs.

*Scientific staff.*—H. E. Burke (in charge of Pacific Slope Station at Placerville, Cal.), Josef Brunner (in charge of Northern Rocky Mountain Station at Missoula, Mont.), T. E. Snyder, W. D. Edmonston (in charge of Southern Rocky Mountain Station at Colorado Springs, Colo.), F. C. Craighead, J. M. Miller (in charge of seed insect station at Ashland, Oreg.), and A. B. Champplain, assistants in forest entomology; L. C. Griffith, assistant in shade-tree insects; S. A. Rohwer, specialist on forest Hymenoptera (in charge of Eastern Station at East Falls Church, Va.); A. G. Böving, specialist; C. T. Greene, specialist on forest Diptera; W. S. Fisher, specialist on forest Coleoptera; Carl Heinrich, specialist on forest Lepidoptera; Jacob Kotinsky and B. T. Harvey, entomological assistants; Joseph J. De Gryse and William Middleton, scientific assistants.

**Investigations of Insects Affecting the Health of Man and Animals.** Under immediate direction of the Chief of Bureau and W. D. Hunter.

This field covers the relation between certain ticks and spotted fever, mosquitoes and malaria and yellow fever, and the house fly and typhoid fever. The investigations also deal with insects as internal and external parasites of animals and seek practical methods for their control. A number of pests affecting domestic animals, including the cattle tick, the stable fly, and the horn fly, are being studied.

*Scientific staff.*—D. L. Van Dine, F. C. Bishopp, A. H. Jennings, W. V. King, H. P. Wood, and D. C. Parman, entomological assistants; R. H. Hutchison, E. W. Laake, and W. E. Dove, scientific assistants.

**Investigations in Bee Culture.** E. F. PHILLIPS, *in charge.*

The structure, development, and behavior of the bee are being investigated. Special attention is given to methods of wintering, with chief emphasis at present on the proper temperature of the bee cellar. Bee diseases are being thoroughly studied. The ultimate object is to furnish helpful information to the beekeeper.

*Scientific staff.*—G. S. Demuth and A. H. McCray, apicultural assistants; G. F. White and J. A. Nelson, experts.

**Gipsy Moth and Brown-Tail Moth Investigations.** A. F. BURGESS, *in charge.*

A large field force is maintained in New England in the work of preventing the spread of these two moths. A laboratory is maintained for the assemblage, study, and liberation of imported parasites of these moths; the work of the parasites is studied in the field. A quarantine is maintained and all products likely to carry these insects are inspected before they are shipped from the infested area.

*Scientific staff.*—D. M. Rogers, assistant in charge of gipsy-moth quarantine; L. H. Worthley, agent; C. H. T. Townsend, S. S. Crossman, C. W. Collins, F. H. Mosher, R. W. Glaser, Reginald Wooldridge, J. J. Culver, and C. W. Stockwell, entomological assistants; J. N. Summers, J. W. Chapman, J. B. Schaffner, jr., H. A. Preston, W. B. Turner, C. E. Hood, J. J. Pillsbury, H. W. Allen, R. T. Webber, D. W. Jones, and John W. Bradley, scientific assistants; G. E. Clement, Willis Munro, and O. D. Ingall, assistants in forest management.

**Miscellaneous Investigations.** Under immediate direction of the Chief of Bureau.

The naming, classification, and establishment of the systematic relationships of all insects which are being studied in the various laboratories of the bureau, and the identification of similar material submitted by the agricultural experiment stations and by scientific workers, are included under this head.

*Scientific staff.*—August Busck, Rolia P. Currie, H. G. Dyar, Frederick Knab, and C. S. Menagh, entomological assistants; E. A. Schwarz, Nathan Banks, A. N. Caudell, H. S. Barber, Otto Heidemann, and Theodore Pergande, assistants; A. A. Girault, expert on Chalcidoidea.

**Editorial Office.** ROLIA P. CURRIE, *in charge*; B. A. REYNOLDS, *Assistant*.

The editorial office attends to the editing of manuscripts, the reading of proofs of publications and other printed matter, the preparation of indexes and abstracts, correspondence relating to manuscripts, proofs, and publications, and other work of a similar nature.

### BUREAU OF BIOLOGICAL SURVEY.

*Biologist and Chief of Bureau*, HENRY W. HENSHAW; *Assistant Chief*, E. W. NELSON; *Chief Clerk and Executive Assistant*, A. B. MORRISON; *Clerk in Charge of Editorial Work*, W. H. CHEESMAN.

The Biological Survey has charge of the work of the department relating to wild birds and mammals in their relation to agriculture. It studies their food habits, maps their geographic distribution, and investigates methods of protecting beneficial species and controlling harmful ones; experiments in fur farming; controls noxious mammals in national forests and on the public domain; supervises Federal bird and game reservations; and administers Federal laws protecting birds and game and regulating importations of birds and animals.

### Economic Investigations.

A. K. FISHER, *Assistant in charge*.

**Investigations of Food Habits of Birds.** W. L. MCATEE, *Assistant Biologist, in charge*.

Investigations of food habits of birds are for the purpose of determining the value of birds to agriculture, horticulture, and forestry. By laboratory analyses of stomach contents and by field observations birds may be classed as beneficial, neutral, and harmful in their relationships to man, and recommendations made for the protection of useful species and the repression of injurious ones. The food habits of waterfowl and upland game birds are investigated with a view to securing information of use in increasing the food supply in depleted areas. Methods of attracting desirable species about homes are studied and recommended.

*Scientific staff.*—F. E. L. Beal, R. A. Emmons, I. N. Gabrielson, J. D. Hood, L. O. Jackson, E. R. Kalmbach, D. C. Mabbott, and Alex Wetmore.

**Destruction of Noxious Rodents.** S. E. PIPER, *Assistant Biologist, in charge*.

Under this project extensive campaigns are carried on in national forests and on the public domain to control depredations of prairie dogs, ground squirrels, pocket gophers, rabbits, and other rodents destructive to forest, orchard, and nursery stock, farm produce, and ranges. Demonstrations also are made in farming districts of improved methods of combating these animals.

*Scientific staff.*—J. G. Crick, U. S. Ebner, D. A. Gilchrist, E. G. Holt, R. T. Jackson, Joseph Keyes, D. E. Lantz, T. H. Scheffer, James Silver, A. F. Taylor, R. A. Ward, J. R. Williams, and C. M. Yerrington.

**Destruction of Predatory Mammals.** Under supervision of A. K. FISHER, *Assistant in charge, Economic Investigations*, and S. E. PIPER, *Assistant Biologist*.

Active campaigns are undertaken for the extermination of wolves, coyotes, mountain lions, and other animals destructive of live stock and poultry.

*Field inspectors.*—E. F. Averill, R. E. Bateman, C. J. Bayer, L. B. Crawford, L. J. Goldman, G. E. Holman, C. R. Landon, J. S. Ligon, and E. R. Sans.

**Fur-Farming Investigations.** NED DEARBORN, *Assistant Biologist, in charge.*

Investigations in fur farming are concerned with determining productive and economical methods of rearing foxes, minks, martens, and other fur animals in captivity, and ascertaining the areas suited to this industry.

**Biological Investigations.**

E. W. NELSON, *Assistant Chief, in charge.*

This division conducts investigations in the field to determine the distribution, abundance, habits, and migrations of native mammals and birds; makes technical studies of the groups and species to show relationship and correct classification; maps the areas occupied by each species of mammal, and the summer and winter ranges and migration routes of birds, and from the combined data outlines the natural distribution areas and life zones of the country. The information thus gathered serves as a foundation for the efficient handling of most of the practical, economic problems of the Survey.

The migration of North American birds is being investigated mainly through the work of several hundred volunteer observers and by field parties of this division. The data thus obtained are a basis for protective legislation, both State and National. A National census of birds, made each spring by several hundred observers throughout the United States, is also of value in connection with the conservation and increase of useful species. A census of the migratory waterfowl, combined with an investigation of conditions in their breeding grounds and winter resorts, is furnishing information which will greatly assist in the conservation of these birds.

North American mammals are studied for the purpose of determining the distribution, habits, and value of the different species and of securing data concerning areas to be restocked with large game; also, of locating suitable areas for fur farming. Specimens of birds and mammals are identified for Government bureaus and for educational institutions, museums, and private individuals. The published results of the work of this division appear in the form of reports on special groups of birds and mammals; also, on the birds and mammals of States and special areas, with maps and charts showing distribution of species and life-zone areas.

*Scientific staff.*—Vernon Bailey, W. W. Cooke, E. A. Goldman, A. H. Howell, H. H. T. Jackson, H. C. Oberholser, and E. A. Preble.

**Game Preservation.**

T. S. PALMER, *Assistant in charge.*

This division issues permits for importations and regulates the entry of foreign wild birds and mammals; issues permits for shipments from Alaska of specimens for scientific and exhibition purposes; administers the Federal law regulating interstate commerce in game; supervises the 68 Federal bird reservations, the Montana National Bison Range, the game preserves on the Wind Cave National Park, South Dakota, and Sullys' Hill National Park, North Dakota (2 bird reservations also, the Niobrara Reservation, Nebraska, and the Aleutian Islands Reservation, Alaska, are stocked with big game as well as birds, making in effect a total of 5 big game preserves and 66 bird reservations). Information concerning game is prepared for publication; a card index of State game laws and various indexes of information concerning game protection are maintained; and summaries of State and Federal game laws and a directory of game officials are issued annually. Violations of the act regulating interstate commerce in game, which covers not only birds and game shipped to market but also interstate shipments of plumage, are investigated by the field force, the necessary evidence is collected, and the first steps taken in preparing each case for legal action.

*Assistants.*—W. F. Bancroft and F. L. Earnshaw. *Field assistants, interstate commerce in game.*—E. C. Higgins (Salem, Mo.) and E. V. Visart (Little Rock, Ark.). *Reservation inspectors.*—F. M. Dille (Denver, Colo.), George Willett (Los Angeles, Cal.), G. G. Cantwell (Puyallup, Wash.), and B. J. Pacetti (Ponce Park, Fla.).

**Federal Migratory Bird Law.**

J. E. MERCER, *Assistant in charge.*

This division administers the Federal migratory bird law and publishes and enforces regulations made thereunder for the protection of migratory game and insectivorous birds. The law is administered in cooperation with State authorities with the aid of some 203 State deputies commissioned as Federal wardens, who act under the direction of 17 inspectors, each assigned to a definite district.



*District inspectors.*—F. W. Hennessy, Providence, R. I.; P. S. Farnham, Owego, N. Y.; T. T. Bloxom, Locustville, Va.; H. H. Bailey, Newport News, Va.; T. S. Meekins, Mantoo, N. C.; J. H. Rice, jr., Ritter, S. C.; W. S. Hanson, Fort Myers, Fla.; S. W. Linebaugh, Russellville, Ky.; B. G. Merrill, Hinsdale, Ill.; W. D. Wacaser, Mount Pulaski, Ill.; E. A. Cleasby, Eau Claire, Wis.; Harry Barmeier, Dubuque, Iowa; J. B. Thompson, Doniphan, Mo.; R. P. Holland, Atchison, Kans.; H. H. Kopman, New Orleans, La.; Ralph Benton, Los Angeles, Cal.; E. S. Catron, Portland, Oreg.

### DIVISION OF ACCOUNTS AND DISBURSEMENTS.

*Chief of Division and Disbursing Clerk, A. ZAPPONE.*

This division has charge of the disbursement of public funds appropriated for the Department of Agriculture.

**Cashier's Section.** W. J. NEVIUS, *Cashier and Chief Clerk, in charge.*

This section prepares and mails all checks and handles all moneys received and disbursed.

**Bookkeeper's Section.** F. W. LEGGE, *Accountant and Bookkeeper, in charge.*

This section keeps the books pertaining to the fiscal affairs of the department, prepares requisitions on the Treasury for advance of public funds, and compiles quarterly abstracts of expenditures and collections and an account current covering the liability for public funds.

**Examining Section.** EVERETT D. YERBY, *Supervising Auditor, in charge.*

This section examines all accounts before payment.

**Miscellaneous Section.** W. R. FUCHS, *Deputy Disbursing Clerk, in charge.*

This section handles the vouchers in connection with the Weeks Forestry Law and perform miscellaneous work not assigned to other sections.

### DIVISION OF PUBLICATIONS.

*Editor and Chief, JOS. A. ARNOLD; Editor and Assistant Chief, B. D. STALLINGS; Chief Clerk, A. I. MUDD.*

The Division of Publications conducts all business of the department transacted with the Government Printing Office; has general supervision of all printing, including the editing, indexing, illustration, binding, and distribution of publications, and the maintenance of mailing lists.

**Editorial Work.** B. D. STALLINGS, *Editor and Assistant Chief, in charge.*

This work includes editing manuscripts and giving directions for printing, correcting proofs, and inspecting completed work.

*Editorial corps.*—R. B. Handy, Ephraim Cornman, William F. Harding, George W. Kennedy, Stanley Searles, T. K. Burrows, Delos M. Carter, and R. S. Moore, assistant editors.

**Indexing.** CHARLES H. GREATHOUSE, *Assistant Editor in charge.*

Two kinds of indexes are made: (1) Indexes to be printed with individual publications; (2) a general card index, by subjects, of all publications of the department. Congressional documents are obtained for department officials, and the Congressional Record is marked daily for their attention.

**Illustrations.** A. B. BOETTCHER, *Assistant in charge.*

Drawings and photographs are made for use in illustrating publications and also for use in the various branches of the department's work. Photographic prints and lantern slides are sold to the public.

**Document Section.** FRANCIS J. P. CLEARY, *Assistant in charge.*

This section receives and distributes the publications designed for departmental use; mails circulars and documents not intended for public distribution; furnishes mailing lists and makes orders upon the Public Printer for the mailing of publications intended for the public; specifies the publications to be sent in response to miscellaneous requests; prepares correspondence relating to the publications and keeps all records of the distribution, including the Congressional quotas of Farmers' Bulletins; addresses franks and envelopes, and prepares addresses for mailing lists, of which a general index is kept up to date; and duplicates official circulars, as well as the information prepared for the press.

**BUREAU OF CROP ESTIMATES.**

*Statistician and Chief of Bureau*, LEON M. ESTABROOK; *Assistant Chief of Bureau*, NAT C. MURRAY; *Chief of Division of Crop Reports*, SAMUEL A. JONES; *Assistant Chief of Division of Crop Reports*, EDWARD CRANE; *Chief of Division of Crop Records*, FRANK ANDREWS; *Chief Clerk*, ORVILLE N. FANSLER; *Statistical Scientists*, GEORGE K. HOLMES, CHARLES M. DAUGHERTY, and F. J. BLAIR.

The Bureau of Crop Estimates (formerly Bureau of Statistics) collects crop data, issues the monthly crop reports of the department, prepares the statistical portion of the Department Yearbook, and conducts special inquiries relative to estimates of United States and foreign crops for inclusion in bulletins and correspondence.

**Crop Reporting Board.**

A Crop Reporting Board, consisting of the chief of bureau (chairman) and five other members selected from the officials and agents of the bureau, considers in secret session all available data and issues periodic reports relative to acreage in planting season, condition and indicated yield during the growing season, and production and yield at harvest time of all speculative crops. The chief of bureau and his assistants consider data and issue corresponding reports for nonspeculative crops and live stock.

**Division of Crop Reports.**

*Field service.*—The service outside of Washington consists of 40 field agents, 3 crop specialists, and various independent lists of voluntary reporters, numbering in all approximately 150,000. The field agents and crop specialists keep in touch with the best informed opinion throughout their districts by travel and by maintenance of special corps of reporters, and render periodic reports for their respective territories. Of the voluntary correspondents the county reporters submit reports regularly for their respective counties and the township reporters for their respective localities. Summaries of reports from these three independent sources form the bases of the reports issued by the bureau. Special lists of reporters are maintained for special inquiries.

*Clerical force.*—The clerical force of the Division of Crop Reports maintains various independent lists of voluntary crop reporters to whom regular and special blank schedules of inquiry are submitted for data desired. The information so secured is tabulated and arranged in convenient form for study and analysis by the Statistician and Crop Reporting Board.

**Division of Crop Records.**

The Division of Crop Records collects and makes available for study and use data relative to the agricultural products of the United States and foreign countries, prepares tables and special articles for the Department Yearbook and bulletins, provides statistical information in response to special inquiries, and conducts inquiries relative to various statistical phases of agriculture. A well-equipped library of agricultural statistics is maintained.

**LIBRARY.**

*Librarian*, CLARIBEL R. BARNETT; *Assistant Librarian*, EMMA B. HAWKS.

The department library, consisting of the main library and the various bureau, division, and office libraries, contains approximately 133,000 books and pamphlets, including an extensive collection on agriculture and all its branches, a large and representative collection on the sciences related to agriculture, and a good collection of standard reference books. In addition to the department use, books are lent to college and experiment station libraries and other institutions for use in connection with the researches of these institutions. Periodicals currently received number more than 2,300. A dictionary card catalogue is maintained consisting of about 310,000 cards. Printed catalogue cards for publications of the department are prepared by the department library and printed at the Library of Congress. The librarian has charge of the foreign mailing lists for department publications.

**STATES RELATIONS SERVICE.**

*Director*, A. C. TRUE.

The States Relations Service represents the Secretary of Agriculture in his relations with the State agricultural colleges and experiment stations under the acts of Congress granting funds to these institutes for agricultural experiment stations and cooperative extension work in agriculture and home economics, and in carrying out the provisions of acts of Congress making appropriations to this department for farmers' cooperative demonstration work, investigations relating to agricultural schools, farmers' institutes

and home economics, and the maintenance of agricultural experiment stations in Alaska, Hawaii, Porto Rico, and Guam.

#### Office of the Director.

EUGENE MERRITT, *Administrative Assistant*; Mrs. C. E. JOHNSTON, *Chief Clerk*; F. E. SINGLETON, *Chief Accountant*; Miss E. L. OGDEN, *Librarian*.

#### Editorial Division. W. H. BEAL, *Chief*.

This division edits and prepares for printing all publications of the States Relations Service except the Experiment Station Record; cooperates with the Division of Publications in maintaining mailing lists and in the distribution of publications of the service; and has charge of lantern slides and other illustrative material.

#### Investigations on Agricultural Instruction in Schools. C. H. LANE, *Chief Specialist in Agricultural Education*.

These investigations include studies of the methods and subject matter of school instruction in agriculture in this and other countries, with a view to determining the needs of such instruction in order to make it practically useful to students who are to become farmers or workers in agricultural institutions, and to furnish schools with up-to-date and properly organized subject matter and illustrative materials in the various branches of agriculture, to supplement and reinforce textbooks and field practices.

#### Investigations on Farmers' Institutes and Movable Schools. J. M. STEDMAN, *Farmers' Institute Specialist*.

These investigations include studies on farmers' institutes, movable agricultural schools, and similar organizations carried on in this and other countries, especially with a view to devising and experimenting with modified or new methods adapted to conditions in the United States, and to providing farmers' institute and extension workers with publications and illustrative material especially adapted to their needs.

#### Office of Experiment Stations.

E. W. ALLEN, *Chief*, and *Editor of Experiment Station Record*.

#### Relations with Institutions for Agricultural Research.

Under this head the office is broadly organized to give the State agricultural experiment stations such advice and assistance as will best promote their efficiency. It also collects and disseminates information regarding similar institutions throughout the world. Among its activities in relation to the stations are the following:

*Inspection of work and expenditures of the State experiment stations.*—The office supervises the expenditures of the Federal funds granted to the State agricultural experiment stations under the acts of Congress of March 2, 1887, and March 16, 1906. This work is assigned especially to the Chief and W. H. Beal, Walter H. Evans, J. I. Schulte, and E. V. Wilcox.

*Experiment Station Record.*—The office publishes Experiment Station Record, a periodical which gives abstracts of the bulletins and annual reports of the experiment stations, of the publications of the Department of Agriculture, and of publications reporting investigations in agricultural science in the different countries of the world. The Record also contains editorials and notes bearing upon station work. The staff of the Record is as follows: Editor, E. W. Allen; assistant editor, H. L. Knight; agricultural chemistry and agrotechny, E. H. Nollau; meteorology, soils, and fertilizers, W. H. Beal and R. W. Trullinger; agricultural botany, bacteriology, and plant pathology, W. H. Evans and W. E. Boyd; field crops, G. M. Tucker; horticulture and forestry, E. J. Glasson; foods and human nutrition, C. F. Langworthy, H. L. Lang, and C. F. Walton, jr.; zootechny, dairying, and dairy farming, Hugh Webster; economic zoology and entomology, W. A. Hooker; veterinary medicine, W. A. Hooker and E. H. Nollau; rural engineering, R. W. Trullinger; rural economics, Eugene Merritt; agricultural education, C. H. Lane; indexes, M. D. Moore.

#### Division of Insular Experiment Stations. WALTER H. EVANS, *Chief*.

The experiment stations in Alaska, Hawaii, Porto Rico, and Guam are conducted under the general direction of this division.

#### Alaska Agricultural Experiment Stations. C. C. GEORGESON, Sitka, *Agronomist in charge*.

The main station in Alaska is at Sitka. Investigations are also carried on at Rampart, in the Yukon Valley; at Kodiak; and at Fairbanks, in the valley of the Tanana River. The work consists of field experiments with vegetables, cereals, and forage plants; horticultural investigations; the maintenance of live stock; the curing of hay and silage; the distribution of seeds; and an agricultural survey of the Territory.



*Staff.*—J. P. Anderson, horticulturist, Sitka; G. W. Gasser, assistant in charge, Rampart; T. D. Crippen, assistant, Rampart; M. D. Snodgrass, assistant in charge, Kodiak; H. E. Pratt, animal husbandman, Kodiak; J. C. Laney, assistant dairyman, Kodiak; J. W. Neal, assistant in charge, Fairbanks.

**Hawaii Agricultural Experiment Station.** J. M. WESTGATE, Honolulu, *Agronomist in charge.*

The activities of this station are concerned with cotton, rice, forage crops, fiber, and horticultural plants, with soils, plant diseases, insects, and extension work. In cooperation with the Hawaiian Government, a demonstration farm is maintained on the Island of Hawaii, and a marketing division in Honolulu.

*Staff.*—J. E. Higgins, horticulturist; V. S. Holt, assistant horticulturist; M. O. Johnson, chemist; Alice R. Thompson, assistant chemist; J. B. Thompson, assistant agronomist in charge of Glenwood substation; C. A. Sahr, assistant agronomist; F. G. Krauss, superintendent of extension work; A. T. Longley, in charge of cooperative marketing investigations.

**Porto Rico Agricultural Experiment Station.** D. W. MAY, Mayaguez, *Agronomist in charge.*

Investigations of this station relate especially to the growing of coffee, field crops, and horticultural plants, the development of animal husbandry and dairying, soils, vegetable pathology, and entomology.

*Staff.*—P. L. Gile, chemist; J. O. Carrero, assistant chemist; C. F. Kinman, horticulturist; T. B. McClelland, assistant horticulturist; R. H. Van Zwaluwenburg, entomologist; E. W. Brandes, plant pathologist.

**Guam Agricultural Experiment Station.** A. C. HARTENBOWER, Guam, *Agronomist in charge.*

The station in Guam is located near Agaña, the principal town. Experiments are being conducted in improved methods of cultivation, introduction and improvement of tropical agricultural crops, and introduction of improved live stock.

*Staff.*—L. B. Barber, veterinarian and animal husbandman; P. Nelson, assistant.

#### Office of Extension Work in the South.

BRADFORD KNAPP, *Chief.*

#### Relations with Extension Divisions of Agricultural Colleges in 15 Southern States.

Under this head the office cooperates with the extension divisions of the State agricultural colleges within its territory in their extension work in agriculture and home economics, and supervises their work and expenditures under the act of Congress of May 8, 1914. It also acts as an agency for coordinating the extension work of the several bureaus of the department with similar work carried on by the agricultural colleges.

#### Farmers' Cooperative Demonstration Work.

Under this head extension and demonstration work on all subjects relating to agriculture, home economics, and rural life generally is carried on through practical demonstrations and instruction under the supervision and management of State, district, and county agents working with individuals and through organizations of farm men and women and boys' and girls' clubs. This work is supported by direct congressional appropriation to the department; but is done in cooperation with State colleges of agriculture, departments of agriculture and education, county governments and organizations, and others. In the cotton territory the work includes the teaching and demonstration of methods of meeting the ravages of the cotton-boll weevil.

*States.*—Texas, Oklahoma, Louisiana, Arkansas, Tennessee, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, Virginia, Maryland, West Virginia, and Kentucky.

*Scientific staff.*—County agent work: J. A. Evans, assistant chief and assistant field agent for Oklahoma, Texas, Mississippi, Alabama, South Carolina, Georgia, and Florida; W. B. Mercier, agriculturist and field agent for Arkansas, Louisiana, Tennessee, and North Carolina; H. E. Savely, agriculturist and field agent for Oklahoma, Texas, Mississippi, Alabama, South Carolina, Georgia, and Florida; Jesse M. Jones, agriculturist and field agent for Kentucky, Maryland, Virginia, and West Virginia. Boys' and girls' club work and home demonstration work: O. B. Martin, assistant in general charge; I. W. Hill, assistant in boys' club work; Mary E. Creswell and Ola Powell, assistants in home demonstration and girls' club work; H. W. Barber, assistant.

*Field extension staff.*—County agent and boys' club work (men agents): 15 State agents, 19 assistant State agents, 48 district agents, 693 county agents, 52 local agents, 24 special community leaders in club work. Home demonstration and girls' club work (women

agents): 15 State agents, 12 assistant State agents, 5 district agents, 356 county agents, 1 local agent. Total, 1,240.

### Office of Extension Work in the North and West.

C. B. SMITH, *Chief*.

#### Relations with Extension Divisions of Agricultural Colleges in 33 Northern and Western States.

Under this head the office cooperates with the extension divisions of the State agricultural colleges within its territory in their extension work in agriculture and home economics, and supervises their work and expenditures under the act of Congress of May 8, 1914. It also acts as an agency for coordinating the extension work of the several bureaus of the department with similar work carried on by the agricultural colleges.

#### Farmers' Cooperative Demonstration Work.

Under this head extension and demonstration work on all subjects relating to agriculture, home economics, and rural life generally is carried on through practical demonstrations and instruction under the supervision and management of State, district, and county agents working through organizations of farm men and women and boys' and girls' clubs. This work is in cooperation with State colleges of agriculture, departments of agriculture and education, county governments and organizations, and others. Demonstrations in farm management form a special line of work.

*States.*—Arizona, California, Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington, Wisconsin, Wyoming.

*Scientific staff.*—Cooperative relations: L. A. Clinton, assistant chief, in charge; W. A. Lloyd, agriculturist; D. W. Working, agriculturist. County agent work: W. A. Lloyd, in charge; D. W. Working, H. B. Fuller, H. W. Gilbertson, H. J. Wilder. Boys' and girls' club work: O. H. Benson, agriculturist in charge; George E. Farrell, Florence E. Ward. Farm management demonstrations: L. H. Goddard, agriculturist in charge; E. A. Brown. Work of extension specialists: A. B. Graham, in charge. J. A. Liggett, executive assistant.

*Field extension staff.*—County agent work: 30 State leaders, 14 assistant State leaders, 385 county agents. Boys' and girls' club work: 23 State leaders, 12 assistant State leaders. Farm management demonstrations: 22 State demonstrators.

### Office of Home Economics.

C. F. LANGWORTHY, *Chief*; R. D. MILNER, *Assistant*.

#### Studies of Food, Dietetics, Clothing, and Household Equipment, Work, and Management.

This work includes scientific and practical studies of the nature and uses of agricultural products utilized in the home for food, clothing, and equipment, and of the methods of household work and management, and makes available to housekeepers, teachers, students, and extension workers the results of such studies and of practical experience gathered in the home and elsewhere.

#### Respiration Calorimeter Investigations.

This work includes a systematic study by special respiration calorimetric methods of food, clothing, and household equipment and household work with particular reference to energy values and efficiency. Special respiration calorimeter investigations on other subjects included within the work of the department are carried on in cooperation with the different bureaus.

*Scientific staff.*—J. P. Andrew,<sup>1</sup> Helen W. Atwater, Ilena M. Bailey, S. C. Clark, W. P. Garrety, A. D. Holmes, Caroline L. Hunt, H. L. Lang, C. F. Walton, jr., and Anna H. Whittelsey, assistants in investigations.

### OFFICE OF PUBLIC ROADS AND RURAL ENGINEERING.

*Director*, LOGAN WALLER PAGE; *Assistant Director*, P. ST. J. WILSON; *Chief Clerk*, W. CARL WYATT; *Executive Clerk*, W. J. O'LEARY; *Editorial Clerk*, A. L. DAVIES; *Librarian*, GRACE FRANCIS.

The Office of Public Roads and Rural Engineering studies systems of road management and methods of road building, road improvement, and road maintenance; details engi-

<sup>1</sup> Assigned from Bureau of Animal Industry.



neers to assist local officials in building model roads; ascertains the location, properties, and value of road materials; builds experimental roads to devise and test new methods and materials for road construction; investigates the comparative effects of motor and horse-drawn traffic on roads; cooperates with colleges and experiment stations and with State highway officials; exhibits models showing types of roads, culverts, bridges, and road machines; cooperates with the Post Office Department in carrying out the provisions of the Post Office appropriation act of August 24, 1912, relating to the improvement of post roads, and with the Forest Service on road work done with the proceeds of the 10 per cent appropriation from their receipts; cooperates with the Department of the Interior in the improvement of roads in the national parks; investigates and reports concerning the best methods of utilization of water in farm irrigation, and concerning the development of the most efficient equipment for farm irrigation; inquires into all studies of duty, apportionment, and measurement of irrigation water, and into the customs, regulations, and laws affecting irrigation; renders expert advice and assistance in farm irrigation; investigates and reports upon the drainage of farms, and of swamp and other wet lands otherwise available for agriculture; conducts field experiments and investigations in regard to construction and equipment in farm drainage systems; renders expert advice and assistance in farm drainage; investigates the domestic water supply and drainage disposal of the farm; renders expert advice in construction of farm buildings, farm machinery, and in other rural engineering problems.

**Road Management Investigations.** J. E. PENNYBACKER, *Chief of Road Economics, in charge.*

This work covers general statistical and research investigations; the economic study of highway systems; studies of road cost accounting; compilation and advice upon road legislation; traffic census statistics and analyses; lectures and demonstration by road and bridge models and by moving pictures, slides, and photographs; the maintenance of a State index containing information in concise form with reference to road matters throughout the United States; cooperation with railroad companies in reduction and simplification of freight rates on road materials; studies of convict labor applied to highway work; and the giving of expert advice in line with the foregoing projects.

*Scientific staff.*—M. O. Eldridge, L. E. Boykin, and James J. Tobin, assistants in road economics; A. S. Brainard and J. D. Fauntleroy, senior highway engineers; A. P. Anderson, Earl H. Barber, R. F. Eastham, H. S. Fairbank, and W. E. Rosengarten, highway engineers; George D. Marshall, superintendent of road construction; H. W. Hendley, model maker.

**Road Building and Maintenance Investigations.** VERNON M. PEIRCE, *Chief in charge of Road Construction*; E. W. JAMES, *Chief in charge of Road Maintenance*; T. WARREN ALLEN, *Chief in charge of National Park and Forest Roads*; OSCAR L. GROVER, *Bridge Engineer.*

These investigations cover the building of object-lesson and post roads, and object-lesson bridges; the development of county road systems; making inspections and giving expert advice on road and bridge construction; the superintendence of county roads; the making of road surveys; systems of road maintenance; the maintenance of object lesson, experimental, and post roads; conducting object lessons in road maintenance; the construction of roads within the National Parks and National Forests, in cooperation with the Department of the Interior and with the Forest Service; the preparation of typical plans for highway bridges and culverts; and experiments with bridge materials.

*Scientific staff.*—H. L. Arbenz, B. H. Burrell, W. F. Brooks, W. A. Crossland, O. W. Childs, B. F. Finch, E. O. Hathaway, B. F. Heidel, L. I. Hewes, C. H. Kendall, H. H. Lotter, W. H. Lynch, C. H. Moorefield, G. C. Scales, J. F. Schuyler, W. L. Spoon, C. H. Sweetser, R. E. Toms, J. T. Voshell, J. A. Whitaker, and J. C. Wonders, senior highway engineers; H. K. Craig, J. W. Janssen, C. C. Morris, A. E. Palen, O. N. Powell, W. H. Rhodes, jr., V. E. Towles, W. J. R. Weir, and M. E. Worrel, highway engineers; E. S. Alderman, J. W. Ball, F. A. Davis, A. C. Dunn, Mack Galbreath, R. H. Harrison, A. S. Hathaway, jr., A. L. Hooper, F. R. Lyons, H. S. Parry, J. T. Pauls, T. C. Petersen, P. A. Rideout, R. E. Royall, S. L. Taylor, and L. L. Winans, junior highway engineers; J. H. Dodge, J. H. Eldridge, D. G. Haire, C. T. Harrison, H. C. Wells, and D. H. Winslow, superintendents of road construction; Leonard W. Erickson, highway bridge engineer; T. L. Ainsworth, engineer draftsman; O. P. Solem, draftsman.

**Road Material Tests and Research.** PRÉYOST HUBBARD, *Chemical Engineer, in charge of physical, chemical, and concrete laboratories.*

These investigations cover the routine chemical testing and inspecting of dust preventives and road binders and materials allied to road construction; microscopic examination and classification of road-building rocks; research on properties of dust pre-

ventives and road binders; standardization of methods of testing bituminous road materials, experimental bituminous road construction and maintenance; physical testing of road-building materials; nonbituminous road material investigations; standardization of tests on nonbituminous road materials.

*Scientific staff.*—Chemical laboratories: C. S. Reeve, chemist; E. C. E. Lord, petrographer; F. P. Pritchard, B. A. Anderton, and R. H. Lewis, assistant chemists; Benjamin Kamrass, aid, qualified in chemistry. Physical laboratories: F. H. Jackson, jr., assistant testing engineer; C. E. Proudley and Raymond Harsch, laboratory assistants. Concrete investigations laboratories: A. T. Goldbeck, engineer of tests; Earl B. Smith, associate mechanical engineer.

**Field Experiments.** VERNON M. PEIRCE, *Chief of Road Construction, in charge of road construction*; and E. B. McCORMICK, *Mechanical Engineer in charge of traction tests*.

This work comprises the construction of experimental roads in cooperation with local administrative units for the purpose of demonstrating the best methods of constructing new types of roads and of studying the effect upon these roads of traffic under known conditions; investigations concerning various road materials and preparations; investigating and developing equipment intended for the preparation and application of bituminous and other binders; and the conduct of traction tests in order to determine the respective resistance of various road surfaces, and the relative values of wide and narrow tires, of different diameters of wheels, width of tread, together with the effect of grade and method of hitching on the effort that may be exerted by horses; also to determine the effect both on the draft required and on the road surface of increasing the load beyond certain limits.

*Scientific staff.*—Various members of the force of highway engineers, mechanical engineers, chemists, and student assistants in the office.

### **Investigations of Rural Engineering Problems and Farm Structures.**

E. B. McCORMICK, *Mechanical Engineer, in charge*.

These investigations involve the study of the domestic water supply and disposal of sewage, on the farm; recommendations and plans for farm buildings and structures involved in rural improvement, with reference to convenience and economy; research, cooperative, and experimental demonstrations of rural problems involving an expert knowledge of mechanical principles; and instrument making and repairing.

*Scientific staff.*—L. L. Beebe, Morgan Cilley, A. M. Daniels, and Elmer Johnson, assistant mechanical engineers; George M. Warren and A. D. Morehouse, drainage engineers; Wallace Ashby and M. C. Betts, farm architects; Charles Kruegl, architectural draftsman; W. R. Humphries, assistant in farm cost accounting; E. C. Glascock, instrument maker.

### **Irrigation Investigations.**—SAMUEL FORTIER, *Chief in charge of Irrigation Investigations*.

These investigations include the following subjects: Utilization of water in farm irrigation; pumping for irrigation; irrigation appliances and equipment; flow of water in ditches, pipe, and other conduits; measurement of water; customs, regulations, and laws relating to irrigation; expert advice and assistance.

*Scientific staff.*—R. P. Teele, irrigation economist; Paul A. Ewing and Wells A. Hutchins, assistants in irrigation economics; Frank Huntington, editorial clerk; Frank Adams, W. L. Rockwell, irrigation managers; S. H. Beckett, F. L. Bixby, V. M. Cone, H. C. Diesem, P. E. Fuller, W. B. Gregory, H. W. Grunsky, C. G. Haskell, F. G. Harden, S. T. Harding, J. T. Kingdon, W. W. McLaughlin, R. D. Robertson, Fred C. Scobey, F. W. Stanley, C. E. Tait, Milo B. Williams, irrigation engineers; Joseph F. Kunesch, James C. Marr, Reuben B. Sleight, and Frank J. Viehmeyer, assistant irrigation engineers; Earl Beck, L. M. Winsor, agents; E. J. Hoff, mechanic; R. G. Hemphill, John H. Gordon, irrigation farmers.

### **Drainage Investigations.** S. H. McCORRY, *Chief in charge of Drainage Investigations*.

These investigations embrace the following subjects: Methods of removing surplus water from lands having agricultural value; protection of lands from periodical overflow of streams; reclamation of tidal lands; control and conservation of rainfall on hillside lands; construction and maintenance of farm drainage works; equipment for use in constructing and maintaining farm drainage works; and costs and methods of organizing and financing community drainage projects.

*Scientific staff.*—H. H. Barrows, R. A. Hart, Lewis A. Jones, R. D. Marsden, D. G. Miller, Chas. W. Okey, W. W. Weir, senior drainage engineers; O. G. Baxter, F. G. Eason, S. W. Frescoln, J. R. Haswell, A. G. Hall, H. M. Lynde, J. V. Phillips, C. E. Ramser, F. F. Shafer, D. L. Yarnell, drainage engineers; Sidney W. Cooper, W. N. Hall,

W. A. Kelly, W. G. Sloan, David E. Heizer, drainage engineers for irrigated lands; Guy A. Hart and Louie T. Jessup, junior drainage engineers; W. B. Gregory, John T. Stewart, S. M. Woodward, engineers available for special work; Willis E. Comfort, Frederick E. Staebner, civil engineer students; H. S. Yohe, expert on drainage organization; I. W. Hall, J. G. Hanford, and Will D. Nichols, draftsmen.

#### OFFICE OF MARKETS AND RURAL ORGANIZATION.

*Chief*, CHARLES J. BRAND; *Chief Clerk*, R. V. BAILEY; *Librarian*, CAROLINE B. SHERMAN.

The studies of the Office of Markets and Rural Organization cover market conditions, demands for specific crops, sources of supply, methods of grading, standardizing, packing and shipping, and the nature of the commercial transactions by means of which farm produce moves from the farm to the consumer; waste in marketing; profits in handling farm products, with means for the reduction of those which are excessive; and cooperative associations of farmers for handling rural problems. Under authority conferred by the United States cotton futures act, such data are collected as may be necessary to determine what markets are bona fide spot markets, and necessary activities are conducted in order to prescribe rules and regulations, establish and promulgate standards for cotton, and furnish forms thereof to the trade. When disputes arise between the person delivering cotton and the person receiving the same in the settlement of future contracts, questions of grade, length of staple, and quality are determined by the Office of Markets and Rural Organization under the authority of the Secretary.

#### **Cotton Handling and Marketing.** FRED TAYLOR, *Cotton Technologist*.

This work includes the investigation of the commercial processes involved in handling, marketing, and utilizing cotton, in order to make recommendations as to improvements and economies; the conduct of investigational work in the organizing of communities of cotton growers to market their product, and experiments regarding the advantage of growing cotton from pure seed in these communities. Studies are made to determine the value to growers of grading cotton before sale, the relative commercial value of pure-bred varieties, and the percentage of moisture in cotton, and primary market surveys are undertaken to determine the quality and variety and range of price of both long and short staple cottons.

*Scientific staff*.—D. C. Griffith, investigator in cotton marketing; C. F. Creswell, scientific assistant; O. J. McConnell, J. H. Higginbottom, and A. D. Hudson, assistants in cotton marketing; B. M. Botto, assistant in cotton classing; Charles H. Carpenter, agent.

#### **Cooperative Purchasing and Marketing.** CHARLES E. BASSETT and CLARENCE W. MOOMAW, *Specialists in Cooperative Organization*.

Under this project a study is made of the methods of organizing and operating cooperative marketing and purchasing associations. A survey and careful study of existing organizations of this kind are being made in order to form the basis of further investigations and to facilitate the most effective distribution of information and assistance. Specimen articles of incorporation, constitutions, and by-laws have been collected for the different kinds of marketing and purchasing organizations, and, where advisable, assistance is given to groups intending to organize.

#### **Market Surveys, Methods, and Costs.** WELLS A. SHERMAN, *Specialist in Market Surveys*.

Surveys are made to determine supplies available for market, rate of movement, outlets, and prices of specific products by definite trade areas. Questions of supply and demand for certain crops in specific markets are being studied, as is the relation of prices to market receipts and of consumption to prices. Methods are being developed for bringing useful information in regard to prices and supplies promptly to producers and consumers. A study is being made of the feasibility of establishing a telegraphic market news service. Methods of wholesale and retail distribution are being investigated.

*Scientific staff*.—J. H. Collins, C. W. Dunning, John W. Fisher, jr., Paul Froehlich, A. Dexter Gail, jr., John C. Gilbert, Phil. C. Isbell, James P. Klein, L. H. Martin, J. William Park, R. M. Peterson, and O. A. Schleussner, assistants in market surveys; and Houston F. Walker, scientific assistant.

#### **Market Grades and Standards.** CARROL T. MORE, *Investigator in Market Grades and Standards*.

National uniformity in market grades, standards, weights, measures, packages, containers, and trade names is the object of this project. It involves a careful study of present methods of handling, grading, and packing perishable products and the shipping packages used, in order to educate and encourage growers and shippers, as the first step in marketing, to prepare their crops properly for shipment and sale. The elimination of present wastes and losses attending the marketing of perishables is sought.



*Scientific staff.*—Milton M. Stewart and Charles R. Dorland; assistants in market grades and standards.

**City Marketing and Distribution.** G. V. BRANCH, *Investigator in City Markets.*

Investigations under this head are carried on in many of the larger cities of the country. In studying the problems involved in the provisioning of municipal populations, the possibilities of more direct and satisfactory dealing through the medium of public markets of various types are being investigated. The advantages of the various forms and systems of city distribution and the methods and costs of construction and operation of municipal markets are being studied, and upon request suggestions and information are given to city authorities and other responsible organizations.

*Scientific staff.*—Achsah Lippincott, assistant in city marketing investigations; John H. Sherman, collaborator.

**Transportation and Storage.** G. C. WHITE, *Specialist in Charge of Transportation.*

In this section problems involved in the transportation and storage of farm products are being investigated; methods to improve inadequate terminal and transportation facilities are being devised; shippers are being aided in securing proper car supply; the proper adjustment of minimum carload weights is being studied; remedies are being sought to overcome car shortages; and improvements in construction of specific purpose cars are sometimes suggested. The operation of iced or ventilated pick-up cars, special market trains, and suburban and interurban freight and express cars is being encouraged. The loss of foodstuffs between producer and consumer is being studied, and the cooperation of carriers and shippers is being sought in devising methods to prevent such loss.

*Scientific staff.*—T. F. Powell, specialist in transportation.

**Marketing by Parcel Post and Express.** LEWIS B. FLOHR, *Investigator in Marketing by Parcel Post.*

Experiments are being made to determine to what extent the parcel post and the services of the commercial express companies may be utilized profitably in marketing farm and nonmanufactured food products, especially in conveying them from producer to consumer direct. Various types and makes of containers are being used in making experimental shipments of nearly all classes of farm products, including extensive shipments of butter, eggs, fruits, and vegetables. Systems for bringing rural producers and urban consumers into contact and for establishing their business relationships upon a proper basis are being worked out.

*Scientific staff.*—C. A. Burmeister, John W. Law, and C. C. Hawbaker, assistants in marketing by parcel post.

**Marketing Live Stock, Meats, and Meat Products.** LOUIS D. HALL, *Specialist in Marketing Live Stock and Meats.*

A thorough study of existing live-stock markets and systems of marketing is in progress, including transportation facilities and agencies for the distribution of live stock and meats. This involves an investigation of methods and costs of marketing live stock and meats through centralized markets and local agencies; and a compilation of information relative to the centralized markets, their capacity, equipment, and characteristics, including a study of market classes and grades at the different points. Statistical studies of supply and demand and prices of live stock and meats at market centers and in tributary territory is contemplated.

*Scientific staff.*—F. M. Simpson and Stephen W. Doty, assistants in marketing live stock and meats.

**Marketing Business Practice.** W. H. KERR, *Investigator in Market Business Practice.*

The object of this work is to investigate the business practices of cooperative and farmers' marketing, distributing, purchasing, and rural business organizations and other marketing agencies, with special reference to their accounting systems and methods of auditing, business organization and financing, and to devise suitable accounting systems for these organizations and agencies, for the purpose of increasing their efficiency.

*Scientific staff.*—G. A. Nahstoll and J. R. Humphrey, assistants in market business practice; O. B. Jesness, scientific assistant in farm economics; Hector Macpherson, agent, Corvallis, Oreg.; J. A. Bexell, collaborator, Corvallis, Oreg.

**Grain, Seed, and Hay Marketing Investigations.** GEORGE LIVINGSTON, *Investigator in Grain Marketing.*

A detailed economic study of primary and terminal marketing of grain, seed, and hay, together with their sale to the consuming public, is now in progress. This study, which includes cost of marketing, storage, warehouse practices, mixing, scalping, future trading, and other phases of the subject, is being made in order to obtain information useful to

the various agencies engaged in the marketing and distributing of grain, seed, and hay, and for the purpose of offering constructive suggestions for the improvement of the service.

*Scientific staff.*—K. B. Seeds, assistant in grain marketing, and L. D. H. Weld, collaborator.

**Marketing Cotton Seed and its Products.** H. T. POE, Jr., *Specialist in Marketing Cotton Seed.*

In this work investigations are made of present methods of handling, marketing, and utilizing cotton seed and its products, with a view to suggesting means whereby improvements may be made and economies effected, and studies are conducted regarding the establishment of standard grades and the standardization of conditions under which cotton seed and its products are handled and stored. Special attention is given to the consideration of moisture content as a factor in grading.

**Marketing Dairy Products.** ROY C. POTTS, *Specialist in Marketing Dairy Products.*

In this work a thorough study of marketing dairy products and dairy substitutes will be conducted, including methods and costs of their preparation for market, market grades and classification of dairy products, market quotations and quotation systems, selling agreements, marketing facilities and methods, market requirements and conditions, and related subjects, in order to suggest measures by which market conditions and methods may be improved and the costs of marketing dairy products reduced.

*Scientific staff.*—G. P. Warber and Herman F. Meyer, assistants in marketing dairy products; L. D. H. Weld, collaborator.

**Cotton Warehousing Investigations.** R. L. NIXON, *Assistant in Warehouse Investigations.*

The purpose of this work is the accumulation and dissemination of useful information relating to the warehousing of cotton, insurance rates while in storage, and benefits, including better arrangements for financing, to be derived from conserving cotton in storage houses; the construction of different types of warehouses; and the relation of present methods and practices of compressing cotton to warehousing.

*Scientific staff.*—Roy L. Newton, assistant in warehouse investigations.

**Miscellaneous Problems in Marketing and Cooperation.**

Under this project study is made of new lines of work relating to the organization of rural communities, and the preparation, handling, preservation, and marketing of animal, food, and miscellaneous products not specifically provided for under other projects; the work of developing foreign markets is carried on; and cooperation with those governmental agencies already conducting investigations in the marketing of specific products is provided for.

**Investigations and Demonstrations of Cotton Standards.** FRED TAYLOR, *Cotton Technologist.*

Under this head are made field and laboratory investigations and demonstrations of standards for the different grades, qualities, and conditions of white cotton. Investigations are carried on regarding the ginning, grading, stapling, baling, marking, compressing, and tare of cotton. Studies are made relative to standardizing Arizona-Egyptian cotton, blue-tinged, yellow-tinged, and yellow-stained cotton, the length of staple of cotton, cotton representing perished staple, immature staple, and of gin-cut cotton, reginned cotton, and cotton linters. When practicable, grading experts demonstrate proper methods to communities of cotton growers in order to secure more uniform grading in spot cotton transactions, and to show to those communities the advantages of proper grading and classification of cotton before sale. To the end that cotton quotations may be on a more uniform basis, grading and standardization demonstrations are to be conducted in certain spot markets.

*Scientific staff.*—J. G. Martin, investigator in cotton marketing; Harold C. Slade, assistant in cotton marketing; T. C. Adams and H. B. Richardson, assistants in agricultural technology; Emil Schulze, agent.

**Cotton Testing.** Supervisory Committee: FRED TAYLOR, WILLIAM R. MEADOWS, *Cotton Technologists*; D. E. EARLE, *Specialist in Cotton Classing.*

Under this project tests are made of the waste, tensile strength, and bleaching qualities of the different grades, classes, and varieties of cotton in order to determine their commercial and spinning values. Spinning tests are being conducted on the basis of the official cotton standards of the United States, representing cotton of Upland, Texas, and Gulf growths, with staple approximately fifteen-sixteenths of an inch long, purchased from representative sections of the cotton belt, and the tentative grades of Arizona-Egyptian cotton grown in the Salt River Valley are being tested.

*Scientific staff.*—W. S. Dean, assistant in cotton testing; G. H. Anderson, assistant in cotton classing; C. E. Coburn, John J. W. Cooper, R. V. Hellams, and C. E. Killingsworth, assistants in agricultural technology.

**Rural Credit, Insurance, and Communication.** C. W. THOMPSON, *Specialist in Rural Organization.*

This work consists of investigations relating to the organization of rural communities for the purpose of obtaining better credit, insurance, and communication facilities. This includes the study of existing successful organizations performing the functions of rural credit banks; organized activity among farmers for credit improvement; financing the breeding, feeding, and marketing of live stock; the problem of farm finance on reclamation projects in the West; the nature and extent of losses in agriculture, the facilities most helpful in reducing such losses, and other related matters.

*Scientific staff.*—V. N. Valgren, investigator in agricultural insurance; Leon E. Truesdell, field assistant; George Thomas, Logan, Utah, agent.

**Rural, Social, and Educational Activities.** C. W. THOMPSON, *Specialist in Rural Organization.*

The object of this work is the improvement of social and educational conditions in rural communities by the accumulation and dissemination of useful information growing out of a study of the social and educational needs of typical communities; the work of their existing forms of organization, and the possibilities for improvement through organized activity; the investigation of methods of encouraging social organization activities; and the study of means of improving social, economic, and educational conditions of women and children through the work of women's rural organizations.

*Scientific staff.*—J. Sterling Moran, field assistant in rural organization; Anne M. Evans, investigator in women's rural organizations; E. C. Branson, Chapel Hill, N. C., and D. J. Bursleson, Auburn, Ala., collaborators.

**Administration of United States Cotton Futures Act.** CHARLES J. BRAND, *Chief, Office of Markets and Rural Organizations.*

Supervision and direction of the investigational and regulatory activities of the Office of Markets and Rural Organization in connection with the enforcement of the United States cotton futures act and the rules and regulations of the Secretary of Agriculture thereunder, and such executive and clerical duties as may be necessary in connection therewith are carried on under this project.

*Scientific staff.*—Charles J. Brand, Wm. R. Meadows, Fred Taylor, D. E. Earle, D. C. Griffith, J. G. Martin, Hal Brown, O. J. McConnell, R. L. Crittenden, W. S. Dean, Harold C. Slade, and R. L. Francis, board of examiners; Fred Taylor, D. E. Earle, D. C. Griffith, Hal Brown, W. S. Dean, Harold C. Slade, and W. E. Chambers, committee on final inspection; John F. Barghausen, mechanical assistant.

**Determination of Disputes Under the United States Cotton Futures Act.**

THOMAS B. MILLS, Jr., *Assistant in Cotton Business Methods.*

The object of this work is to hear and determine disputes as to grade, quality, or length of staple of cotton tendered in settlement of future contracts made in compliance with section 5 of the cotton futures act and referred to the Secretary of Agriculture under the terms of the act, and to draw up memoranda of conclusions upon which are based the Secretary's findings in cases of dispute.

*Scientific staff.*—Robert L. Crittenden and R. L. Francis, specialists in cotton classing; Hal Brown and H. E. Tucker, assistants in cotton classing; E. T. Chassaignac and A. M. Agelasto, assistants in cotton business methods; R. A. Freret, assistant in cotton marketing; O. J. Field, clerk.

**Investigations of Future and Spot Markets for Cotton Under the United States Cotton Futures Act.** WILLIAM R. MEADOWS, *Cotton Technologist.*

Under this head investigations are made of future markets for cotton to ascertain how accurately their future quotations reflect spot values, and to secure general information as to conditions within the future exchanges; markets are studied to determine their fitness for designation as bona fide markets; reliable quotations are secured daily from each of the designated spot markets; and the markets are inspected from time to time to see that they conform to the necessary conditions.

*Scientific staff.*—George R. Argo, assistant in cotton business methods.

**Preparation and Distribution of the Official Cotton Standards of the United States Under the United States Cotton Futures Act.** FRED TAYLOR, *Cotton Technologist.*

In this section is done the work of preparing and distributing the official cotton standards of the United States, promulgated by the Secretary of Agriculture on December 15,



1914, under section 9 of the United States cotton futures act; of inspecting and condemning these standards when necessary; and replacing them upon request.

*Scientific staff.*—D. E. Earle, specialist in cotton classing; C. E. Atkinson and L. W. Kellner, assistants in cotton marketing; R. L. Kause, assistant in agricultural technology; M. L. Rice, assistant in cotton classing.

#### **Extension and Demonstration Work.**

In this section are grouped those activities conducted to carry by demonstration to the people of the United States useful information relating to the marketing and distributing of farm products and the organization of rural interests.

*Scientific staff.*—C. E. Bassett and C. W. Moomaw, specialists in cooperative organization; W. A. Sherman, specialist in market surveys; W. H. Kerr, investigator in market business practice; Louis D. Hall, specialist in marketing live stock and meats; C. T. More, investigator in market grades and standards; C. W. Thompson, specialist in rural organization; Turner Wright, field assistant in marketing investigations; Fred W. Hofmann, assistant in marketing vegetables and fruits.

### **BOARDS AND COMMITTEES.**

#### **Insecticide and Fungicide Board.**

The Insecticide and Fungicide Board, created December 22, 1910, assists the Secretary of Agriculture in the enforcement of the insecticide act of 1910.

*Members.*—J. K. Haywood, chairman; M. B. Waite, A. L. Quaintance, and James A. Emery; executive officer, J. G. Shibley.

#### **Federal Horticultural Board.**

The Federal Horticultural Board, created August 21, 1912, assists the Secretary of Agriculture in the enforcement of the plant quarantine act of August 20, 1912.

*Members.*—C. L. Marlatt, chairman; W. A. Orton, vice chairman; George B. Sudworth, W. D. Hunter, and Karl F. Kellerman; R. C. Althouse, secretary of board.

#### **Committee on the Editing of the Journal of Agricultural Research.**

The Journal of Agricultural Research publishes technical papers giving the results of the various lines of research carried on by the department or by the State agricultural experiment stations. The selection of the papers and the conduct of the Journal are intrusted to this committee.

*Members.*—K. F. Kellerman, chairman; E. W. Allen and C. L. Marlatt, for the Department of Agriculture; Raymond Pearl (Maine), H. P. Armsby (Pennsylvania), and E. M. Freeman (Minnesota), for the Association of American Agricultural Colleges and Experiment Stations.



---

---

AGRICULTURAL COLLEGES AND EXPERIMENT  
STATIONS.

---

---



## KEY TO ABBREVIATIONS.

<i>Acct.</i> , Accountant, Accounts.	<i>Husb.</i> , Husbandry, Husbandman.
<i>Actg.</i> , Acting.	<i>Hyg.</i> , Hygiene.
( <i>Actg.</i> ), Acting Professor.	<i>Indus.</i> , Industry, Industrial, Industries.
( <i>Adjunct</i> ), Adjunct Professor.	<i>Inorg.</i> , Inorganic.
<i>Agr.</i> , Agriculture, Agriculturist, Agricultural.	<i>Insp.</i> , Inspection, Inspector.
<i>Agron.</i> , Agronomy, Agronomist.	<i>Instr.</i> , Instruction, Instructor.
<i>Agt.</i> , Agent.	<i>Insts.</i> , Institutes.
<i>An.</i> , Animal.	<i>Invest.</i> , Investigations, Investigational.
<i>Anal.</i> , Analytical, Analysis.	<i>Irrig.</i> , Irrigation, Irrigationist.
<i>Anat.</i> , Anatomy.	<i>Lab.</i> , Laboratory.
<i>Archi.</i> , Architecture.	<i>Landsc.</i> , Landscape.
<i>Assoc.</i> , Associate.	<i>Lect.</i> , Lecturer.
( <i>Assoc.</i> ), Associate Professor.	<i>Libr.</i> , Library, Librarian.
<i>Asst.</i> , Assistant.	<i>Mach.</i> , Machine, Machinery.
( <i>Asst.</i> ), Assistant Professor.	<i>Mech.</i> , Mechanics, Mechanical.
<i>Bact.</i> , Bacteriology, Bacteriologist.	<i>Met.</i> , Meteorology, Meteorologist.
<i>Biol.</i> , Biology, Biologist, Biological.	<i>Mfrs.</i> , Manufacturers.
<i>Bot.</i> , Botany, Botanist, Botanical.	<i>Mgr.</i> , Manager.
<i>Brdg.</i> , Breeding.	<i>Mgt.</i> , Management.
<i>Chair.</i> , Chairman.	<i>Mycol.</i> , Mycology, Mycologist.
<i>Chem.</i> , Chemistry, Chemist, Chemical.	<i>Nat.</i> , Natural.
<i>Climat.</i> , Climatology, Climatologist.	<i>Nutr.</i> , Nutrition.
<i>Coll.</i> , College.	<i>Oler.</i> , Olericulture, Olericulturist.
<i>Comp.</i> , Comparative.	<i>Org.</i> , Organic.
<i>Comr.</i> , Commissioner.	<i>Ornith.</i> , Ornithology, Ornithologist.
<i>Consult.</i> , Consulting.	<i>Parasitol.</i> , Parasitology, Parasitologist.
<i>Coop.</i> , Cooperation, Cooperative, Cooperator.	<i>Path.</i> , Pathology, Pathologist.
<i>Corresp.</i> , Correspondence, Correspondent.	<i>Pedag.</i> , Pedagogy, Pedagogics.
<i>Dem.</i> , Demonstration, Demonstrator.	<i>Pharm.</i> , Pharmacy, Pharmacist, Pharmaceutical.
<i>Dept.</i> , Department.	<i>Photog.</i> , Photography, Photographer.
<i>Dir.</i> , Director.	<i>Phys.</i> , Physics, Physicist, Physical.
<i>Dist.</i> , District.	<i>Physiol.</i> , Physiology, Physiologist, Physiological.
<i>Distrib.</i> , Distribution.	<i>Pomol.</i> , Pomology, Pomologist, Pomological.
<i>Div.</i> , Division.	<i>Pract.</i> , Practice, Practical.
<i>Dom.</i> , Domestic.	<i>Prep.</i> , Preparatory.
<i>Econ.</i> , Economy, Economic, Economics.	<i>Pres.</i> , President.
<i>Ed.</i> , Education.	<i>Prin.</i> , Principal.
<i>Ele.</i> , Elementary.	<i>Prod.</i> , Production, Products.
<i>Engin.</i> , Engineer, Engineering.	<i>Professor</i> , shown by giving subject only, as
<i>Ent.</i> , Entomology, Entomologist, Entomological.	<i>Agron.</i> , i. e., professor of agronomy.
<i>Erad.</i> , Eradication.	<i>Sci.</i> , Science, Scientific.
<i>Expt.</i> , Experiment, Experimentalist, Experimental.	<i>Sec.</i> , Secretary.
<i>Ext.</i> , Extension.	<i>Secon.</i> , Secondary.
( <i>Ext.</i> ), Extension Professor.	<i>Sociol.</i> , Sociology.
( <i>Ext. Asst.</i> ), Extension Assistant Professor.	<i>Sta.</i> , Station.
( <i>Ext. Assoc.</i> ), Extension Associate Professor.	<i>Substa.</i> , Substation.
<i>Feed.</i> , Feeding.	<i>Supt.</i> , Superintendent.
<i>Fert.</i> , Fertility, Fertilizer.	<i>Surg.</i> , Surgery.
<i>Flor.</i> , Floriculture, Floriculturist, Floricultural.	<i>Tech.</i> , Technology, Technologist, Technical.
<i>For.</i> , Forestry.	<i>Treas.</i> , Treasurer.
<i>Gard.</i> , Gardening.	<i>Trop.</i> , Tropical.
<i>Gen.</i> , General.	<i>Univ.</i> , University.
<i>Geol.</i> , Geology, Geologist, Geological.	<i>Veg.</i> , Vegetable, Vegetation.
<i>Grad.</i> , Graduate.	<i>Vet.</i> , Veterinary, Veterinarian.
<i>Histol.</i> , Histology.	<i>Vit.</i> , Viticulture, Viticulturist, Viticultural.
<i>Hort.</i> , Horticulture, Horticulturist, Horticultural.	<i>Voc.</i> , Vocational.
	<i>Zool.</i> , Zoology, Zoologist.

# AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.<sup>1</sup>

(Prepared in the States Relations Service,

A. C. TRUE, *Director.*)

## ALABAMA.

**Alabama Polytechnic Institute and the Agricultural Experiment Station,  
Auburn.**

\*College faculty. †Station staff. ‡Extension staff.

\*C. C. Thach, A. M., LL. D., *President.*

\*††J. F. Duggar, M. S., *Dir. of Sta. Dir. Ext. Work. Agr. (\*)*

†Samuel Adler, M. S., *Asst. Chem.*

†J. T. Anderson, Ph. D., *Chem., Soil and Crop Invest.*

\*P. F. Bahnsen, V. S., *Lect. Phys. Diag-  
nosis.*

\*††R. U. Blasingame, B. S., *Agr. Engin.*

\*Thomas Bragg, M. S., (*Assoc.*) *Chem.*

\*††F. E. Boyd, M. S., (*Asst.*) *Agron.; Asst. Agron.*

\*†J. E. Buck,<sup>2</sup> M. S., (*Asst.*) *Ent.; Asst. Ent.*

†D. J. Burleson, *Ext. Agron.*

\*†C. A. Cary, B. S., D. V. M., *Dean Vet. Med. and Surg., Physiol.; Vet. (State Vet.). Dir. Farmers' Insts.*

†E. F. Cauthen, B. S., *Assoc. Agr., Recorder.*

\*†L. N. Duncan, M. S., *School Agr., Supt. of Junior and Home Econ. Ext. Work.*

\*C. W. Ferguson, D. V. M., M. D. C., *Instr. Vet. Med.*

\*†H. C. Ferguson, B. S., *Instr. An. Indus.; Asst. An. Indus.*

†C. G. Filler, *Beef Cattle Expert (Coop. U. S. D. A.).*

†J. C. Ford, M. S., *Pig Clubs (Coop. U. S. D. A.).*

\*†M. J. Funchess, M. S., (*Assoc.*) *Agr.; Assoc. Agr.*

†Ernest Gibbens, B. S., *Asst. in Beef Husb. (Allenville).*

\*D. D. Gibson, B. S., *Asst. in An. Husb.*

\*†C. L. Hare, M. S., *Physiol. Chem.; Chem.*

\*†W. E. Hinds, Ph. D., *Ent.*

†I. B. Kerlin, *Asst. in Corn Club Work.*

\*I. S. McAdory, B. S., D. V. M., (*Asst.*) *Vet. Sci.*

\*†A. B. Massey, B. S., (*Asst.*) *Bot.; Asst. Bot.*

\*P. P. Powell, M. S., (*Asst.*) *Chem.*

\*†J. C. C. Price, B. S., (*Assoc.*) *Hort.; Asst. Hort.*

\*†L. F. Pritchett, D. V. M., *Asst. in Bact., Histol.*

†J. P. Quinerly, B. S., *Dairyman (Coop. U. S. D. A.).*

†Madge J. Reese, *Asst. Girls' Dem. Work.*

\*B. B. Ross, M. S., *Dean Agr. Sci., Chem. (State Chem.).*

\*J. R. Rutland, A. B., *Libr.*

†J. C. Schoenlaub, D. V. M., *Hog Cholera Serum Prod.*

†O. H. Sellers, B. S., *Asst. Rgr., Sec. to Dir.*

<sup>1</sup>These lists were compiled by Mary A. Agnew and Althea E. Thacker, of the States Relations Service, and are intended to replace the "Organization Lists of the Agricultural Colleges and Experiment Stations in the United States." They differ from the latter in that they include only names of persons directly engaged in teaching, investigation, or demonstration in agriculture and home economics.

The names are arranged alphabetically for each institution. This arrangement, with the name index at the end of the bulletin, it is thought, will facilitate the finding of names, especially in the longer lists. An asterisk (\*) indicates a college officer, a dagger (†) a station officer, and a double dagger (‡) an extension worker. When the title of the position in the station differs from that in the college the latter is given first, except in the case of the director of the station. A key to the abbreviations used is given on page 42.

<sup>2</sup>On leave.

## ALABAMA—Continued.

- |   |   |
|---|---|
| <p>†G. V. Stelzenmuller, B. S., <i>Hort. Field Agt.</i><br/>         †Nellie M. Tappen, <i>Asst. in Girls' Dem. Work (Montevallo).</i><br/>         *†G. S. Templeton, B. S., <i>An. Husb.</i><br/>         *†F. L. Thomas, Ph. D., (<i>Asst.</i>) <i>Ent.</i>;<br/>         †H. B. Tisdale, B. S., <i>Asst. Agr.</i><br/>         †E. A. Vaughan, M. S., <i>Field Agt. in Ent.</i></p> | <p>*†Ernest Walker, B. S., <i>Hort., For. (State Hort.).</i><br/>         *W. W. Webb, D. V. M., <i>Instr. Physiol., Therapeutics.</i><br/>         *G. R. White, M. D., D. V. S., <i>Lect. on An. Restraint and Surg.</i><br/>         †J. T. Williamson, B. S., <i>Agr. Field Agt.</i><br/>         †H. C. Wilson, D. V. M., <i>Hog Cholera Expert (Coop. U. S. D. A.).</i></p> |
|---|---|

**Canebrake Agricultural Experiment Station, Uniontown.**

†L. H. Moore, *Director in charge.*

**Agricultural and Mechanical College for Negroes, Normal.**

\*College faculty. †Extension staff.

\*W. S. Buchanan, B. A. S., A. M., *President. Agr.*

- |  |  |
|--|--|
| <p>*Samantha Brawley, <i>Plain Sewing.</i><br/>         *Mrs. Ellen M. Darnell, <i>Millinery, Fancy Sewing.</i><br/>         *W. T. Gravitt, <i>Farm Mgt.</i><br/>         *R. H. Hampton, B. S., <i>Hort., Biol.</i><br/>         *Mrs. Sadie D. Harrison, <i>Housekeeping.</i><br/>         *H. C. Hopkins, M. S., <i>Agr.</i><br/>         *Mrs. Odessa Parker, <i>Cooking.</i></p> | <p>†P. C. Parks, B. S., <i>Agr. Ext.</i><br/>         *Mrs. Cornelia J. Pickett, <i>Laundrying.</i><br/>         *A. G. Robertson, M. D., <i>Chem.</i><br/>         *Miss M. Rush, <i>Nursing.</i><br/>         *Miriam Sims, <i>Dressmaking.</i><br/>         *Harriet J. Smith, A. B., <i>Libr.</i><br/>         *Ethel S. Storey, <i>Home Decoration.</i><br/>         *H. A. Wilson, B. S. A., <i>Agr.</i></p> |
|--|--|

**Agricultural School and Agricultural Experiment Station of the Tuskegee Normal and Industrial Institute, Tuskegee Institute.**

\*College faculty. †Station staff. ‡Extension staff.

R. R. Moton,<sup>1</sup> *Principal.*

- \*†G. W. Carver, M. S., *Dir. of Sta. Dept. of Research, Consult. Chem. (\*†)*  
 †C. J. Calloway, *Dir. Ext. Div.*

- |   |   |
|---|---|
| <p>*†R. C. Atkins, <i>Dairy Husb.</i><br/>         *H. B. Benson, <i>Canning, Swine Raising.</i><br/>         *†J. H. Bias, D. V. S., <i>Vet.</i><br/>         *†H. H. Boger, <i>Live Stock, Fert.</i><br/>         *†G. R. Bridgeforth, B. S., <i>Dir. Agr. Indus. (Coop. U. S. D. A.).</i><br/>         †T. M. Campbell, <i>Dem. and Farmers' Inst. Work.</i><br/>         *Mrs. Cecyl D. Carter, <i>Dom. Sci.</i><br/>         *†T. N. Cowen, <i>Farm Supt.</i><br/>         *Constance Cross, <i>Plain Sewing and Ladies' Tailoring.</i><br/>         *Mary E. Davis, <i>Housekeeping.</i><br/>         *Minnie E. Davis, <i>Housekeeping.</i><br/>         *†E. C. Dobbs, <i>Farming.</i><br/>         *Ophelia M. Donaldson, <i>Asst. Laundrying.</i><br/>         †C. W. Greene, <i>U. S. Dem. Work.</i></p> | <p>*†H. H. Harris, <i>Dairying.</i><br/>         *†W. W. Hayes, <i>Truck Gard.</i><br/>         *Hattie E. King, <i>Dressmaking.</i><br/>         *Mrs. Addie D. Pollard, <i>Housekeeping.</i><br/>         *†O. D. Pyles, <i>Asst. Agr. Instr.; Agr. Chem.</i><br/>         *†N. D. Ricks, <i>Fruit Growing.</i><br/>         *Ernestine Suarez, <i>Libr.</i><br/>         *Miss L. C. Taylor, <i>Dom. Sci.</i><br/>         *Cornelia A. Vivian, <i>Millinery.</i><br/>         *Mrs. B. T. Washington, <i>Dir. Women's Indus.</i><br/>         †B. T. Washington, Jr., <i>Asst. Dir. Ext. Div.</i><br/>         *†L. J. Watkins, <i>Road Bldg., Survey.</i><br/>         *†G. D. White, <i>Poultry Husb.</i><br/>         *Luvenia Williams, <i>Housekeeping.</i><br/>         *†Matthew Woods, <i>Horse Husb.</i></p> |
|---|---|

## ALASKA.

**Agricultural Experiment Stations, Sitka, Kodiak, Rampart, and Fairbanks.**

Under the supervision of the Office of Experiment Stations, States Relations Service, United States Department of Agriculture.

†Station staff.

†C. C. Georgeson, M. S., *Agronomist in charge, Sitka.*

- |   |  |
|---|--|
| <p>†J. P. Anderson, B. S., <i>Hort., Sitka.</i><br/>         †T. D. Crippen, B. S., <i>Asst., Rampart.</i><br/>         †G. W. Gasser, B. S., <i>Asst. in charge, Rampart.</i><br/>         †J. C. Laney, B. S., <i>Asst. Dairyman, Kodiak.</i></p> | <p>†J. W. Neal, <i>Asst. in charge, Fairbanks.</i><br/>         †H. E. Pratt, B. S., <i>An. Husb., Kodiak.</i><br/>         †M. D. Snodgrass, B. S., <i>Asst. in charge, Kodiak.</i></p> |
|---|--|

<sup>1</sup>Assumes duties in May, 1916.



## ARIZONA.

## College of Agriculture and the Agricultural Experiment Station of the University of Arizona, Tucson.

\*College faculty. †Station staff. ‡Extension staff.

\*R. B. von Klein Smid, A. M., D. Sc., *President of University.*\*†R. H. Forbes,<sup>1</sup> M. S., *Dean Coll. of Agr. Dir. of Sta.*‡S. F. Morse, B. A. S., *Supt. of Agr. Ext. Service. State Leader.*‡G. W. Barnes, B. S., *Live Stock Specialist.*\*P. H. M. Brinton, M. S., *Anal. Chem.*\*J. G. Brown,<sup>1</sup> *Instr. Bot., Zool.*†W. E. Bryan, M. S., *Asst. Plant Breeder.*†C. N. Catlin, A. M., *Asst. Chem.*\*†W. S. Cunningham, B. S., *Instr. An. Husb.; Asst. An. Husb.*\*A. E. Douglass, Sc. D., *Phys.*†A. L. Enger, B. S., *Asst. Irrig. Engin.*\*†G. F. Freeman, B. S., *Plant Brdg. Actg. Dean and Dir.*\*F. N. Guild, M. S., *Chem.*\*†S. B. Johnson, B. S., *Instr. Hort.; Asst. Hort.*\*Estelle Luttrell, A. B., *Libr.*\*C. A. Meserve, Ph. D., *Bact. and Food Chem. (State Chem.)*†H. M. A. Miller, *Libr.*†A. W. Morrill, Ph. D., *Consult. Ent. (State Ent., Phoenix.)*\*†J. F. Nicholson, M. S., *Agron.*‡L. S. Parke, *State Club Agt.*†T. E. Schreiner, *Poultry Husb.*†G. E. P. Smith, C. E., *Irrig. Engin.*\*DeRossette Thomas, B. S., *Asst. in Home Econ.*\*†J. J. Thornber, M. A., *Bot.*\*†J. C. Th. Uphof, *Instr. Plant Brdg., Bot.; Asst. Bot.*\*†A. E. Vinson, Ph. D., *Agr. Chem.*\*C. T. Vorhies, Ph. D., *(Asst.) Biol.*\*†R. H. Williams, Ph. D., *An. Husb.*\*Jessamine C. Williams, B. S., *Instr. Home Econ.*

## ARKANSAS.

## College of Agriculture and the Agricultural Experiment Station of the University of Arkansas, Fayetteville.

\*College faculty. †Station staff. ‡Extension staff.

\*J. C. Futrall, A. M., *President of University.*\*†Martin Nelson, M. S., *Dean Coll. of Agr. Dir. of Sta.*‡J. H. Miller, A. M., *Dean of Ext. Service.*‡F. E. Anderson, *Asst. in Ext. Work.*‡Marcella Arthur, B. S., *Instr. Home Econ.*\*†M. S. Baker, B. S., *Asst. Agron.*\*†G. G. Becker, B. S., *(Asst.) Ent.; Ent.*\*†G. L. Caldwell, D. V. M., *Asst. in Vet. Sci.; Asst. Vet. Sci., Bact.*\*C. G. Carroll, Ph. D., *Chem.*‡W. A. Denman, *Specialist in Live Stock.*\*†H. E. Dvorachek, B. S., *An. Husb.*\*†W. S. Fields, B. S. A., *Instr. Plant Path.; Asst. Plant Path.*\*†R. M. Gow, D. V. M., *Vet. Sci.; Vet. (State Vet.)*\*†C. H. Heard, M. S., *Asst. Hort.*\*†G. W. Hervey, B. S., *Asst. in An. Husb. (Poultry).*\*†F. H. Herzer, B. S. A., *Asst. in An. Husb. (Dairying).*\*†J. L. Hewitt, B. S. A., *Plant Path.*\*†De Forest Hungerford, M. S., *(Asst.) Agron.; Asst. Agron.*‡Earl Kilpatrick, B. S., *Specialist in Soils and Crops.*‡J. S. Knox, M. S., *Specialist in Hort.*‡W. C. Lassetter, B. S. A., *Asst. Dir. Ext. Service.*\*†C. L. McArthur, M. S., *(Asst.) Path., Bact.; Path., Bact.*‡J. H. McLeod, M. S., *Specialist in Live Stock and Dairying.*\*Mary E. Metzger, B. S., *Asst. in Home Econ.*\*H. E. Morrow, B. S. A., *(Assoc.) Chem.*\*†L. W. Osborn, B. S. A., *Instr. Agron.; Asst. Agron.*\*Ruth A. Peck, B. S., *Instr. in charge Home Econ.*\*F. W. Pickel, B. A., *Biol.*\*†J. B. Rather, M. S., *Agr. Chem.*\*G. E. Ripley, B. S., *Phys.*\*†T. R. Risher, B. S. A., *Asst. Agr. Chem.*\*†H. A. Sandhouse, B. S. A., *Asst. in An. Husb.*†C. D. Stubbs, D. V. M., *Asst. Vet. (Little Rock).*\*Julia Vault, A. M., *Libr.*†C. W. Watson, *State Agent.*\*†W. H. Wicks, M. S., *Hort.*\*†E. G. Will, B. S., *Asst. in Agr. Chem.*<sup>1</sup> On leave.

## ARKANSAS—Continued.

## Branch Normal College, Pine Bluff.

\*College faculty.

\*J. G. Ish, Jr., A. B., *Superintendent.*\*F. T. Venegar, M. S., *Principal.*\*Mrs. Dora Adair, *Cooking.*\*T. D. Hill, *Asst. in Agr.*\*Miss. A. Lewis, *Sewing.*\*C. P. McLurkin, A. M., *Agr. Chem.*\*A. R. Reeves, A. B., *Bot.*

## CALIFORNIA.

## College of Agriculture and the Agricultural Experiment Station of the University of California, Berkeley.

\*College faculty. †Station staff. ‡Extension staff.

\*B. I. Wheeler, Ph. D., LL. D., *President of University.*\*†T. F. Hunt, D. Agr., D. Sc., *Dean Coll. of Agr. Dir. of Sta. Agr. (\*†)*‡W. T. Clarke, B. S., *Agr. Ext. Supt. Farmers' Insts.*†Frank Adams, M. A., *Irrig.*\*†R. L. Adams, M. S., (*Asst.*) *Agron.; Asst. Agron.*\*†E. B. Babcock, M. S., *Genetics.*†L. E. Bailey, B. S., *Asst. Soil Chem.*\*†H. S. Baird, B. S., *Instr. Dairy Indus.; Asst. Dairy Indus. (Davis).*†G. Barovetto, *Field Asst. in Vit. (Davis).*\*†T. J. Barrett, Ph. D., *Plant Path. (Riverside).*\*††L. D. Batchelor, Ph. D., (*Assoc.*) *Plant Brdg.; Assoc. in Plant Brdg. (Riverside).*\*W. E. Bates, M. D., *Lect. in Hyg. (Davis).*†J. R. Beach, D. V. M., *Asst. in Vet. Sci.*\*†S. H. Beckett, B. S., (*Asst.*) *Irrig.; Asst. Irrig., Coop. U. S. D. A. (Davis).*†H. E. Billings, M. S., *Asst. Agr. Chem.*\*†F. T. Bioletti, M. S., *Vit., Enology.*\*†Donald Bruce, M. F., (*Asst.*) *For.; Asst. For.*†V. C. Bryant, M. S., *Instr. Agr. Ext.*†Mrs. D. L. Bunnell, *Libr.*\*†J. S. Durd, B. S., *Agr. Chem. (Fert. Control.)*†C. A. Burge, B. S., *Asst. An. Husb. (Davis).*†B. J. Cady, D. V. M., *Vet. Field Agt. (Coop. U. S. D. A.).*\*†D. H. Carey, B. S., *Instr. Flor.; Supt. Greenhouses and Cardens.*‡Lillian D. Clark, *Instr. Agr. Ext.*\*†R. E. Clausen, Ph. D., *Instr. Genetics; Asst. in Genetics.*\*†J. E. Coit, Ph. D., *Citriculture.*\*†G. A. Coleman, M. A., *Instr. Ent.; Asst. Ent.*\*†I. J. Condit, B. S., (*Asst.*) *Citriculture; Asst. Citriculturist.*†B. H. Crocheron, M. S. A., (*Asst.*) *Agr. Ext. State Leader.*\*†W. V. Cruess, B. S., (*Asst.*) *Zymology; Asst. Zymologist.*\*†J. B. Davidson, M. E., A. E., *Rural Engin. (Davis).*\*Josephine E. Davis, M. A., *Instr. Nutr.*\*†L. M. Davis, B. S., (*Asst.*) *Dairy Indus.; Asst. Dairy Indus. (Davis).*†W. C. Dean, B. S., *Asst. Soil Tech.*†J. A. Denny, *Asst. Agron. (Davis).*\*†V. F. Dolcini, B. S., *Asst. An. Husb. (Davis).*†W. H. Dore, B. S., *Asst. Agr. Chem.*\*†J. E. Dougherty, B. S., (*Assoc.*) *Poultry Husb.; Assoc. Poultry Husb. (Davis).*\*†H. H. Douglass, M. S., *Instr. Dairy Husb.; Asst. Dairy Husb. (Davis).*\*C. F. Elwood, B. S., *Instr. Agr. Ed.*\*†E. O. Essig, M. S., *Instr. Ent.; Asst. Ent.*\*†H. S. Fawcett, M. S., (*Assoc.*) *Plant Path.; Assoc. Plant Path. (Riverside).*\*†F. C. H. Flossfeder, *Instr. Vit.; Asst. Vit. (Davis).*\*†S. B. Freeborn, B. S., *Instr. Ent.; Asst. Ent.*\*†H. B. Frost, Ph. D., *Instr. School of Tropical Agr.; Asst., Citrus Sta., Riverside.*\*†W. F. Gericke, B. S., *Instr. Soil Chem.; Asst. Soil Chem.*\*†J. W. Gilmore, M. S. A., *Agron.*\*†G. P. Gray, M. S., *Instr. Insecticides; Asst. Chem. (Insecticide Control).*\*†J. W. Gregg, B. S., *Landsc. Gard., Flor.*†J. E. Guernsey, M. S., *Asst. in Soil Tech.*†R. M. Hagen, B. S., *Asst. in Agr. Ext.*\*†H. M. Hall, Ph. D., (*Asst.*) *Bot.; Asst. Bot.*\*†C. M. Haring, D. V. M., *Vet. Sci.; Vet., Bact.*\*†F. M. Hayes, D. V. M., (*Asst.*) *Vet. Sci.; Asst. Vet. (Davis).*\*†A. H. Hendrickson, B. S., *Instr. Pomol.; Asst. Pomol.*\*†G. W. Hendry, B. S., *Instr. Agron.; Asst. Agron.*\*†W. B. Herms, M. A., (*Assoc.*) *Parasitol.; Assoc. Ent.*

CALIFORNIA—Continued.

- †P. L. Hibbard, B. S., *Chem. in Fert. Control.*
- \*†E. W. Hilgard, Ph. D., LL.D., *Agr. Chem. Emeritus.*
- †Cora J. Hill, B. L., *Asst. in Dairy Testing.*
- †F. E. Hill, *Foreman For. Sta., Santa Monica.*
- \*†D. R. Hoagland, M. S., (1stst.) *Agr. Chem.; Asst. Agr. Chem.*
- \*†W. T. Horne, B. S., (Assoc.) *Plant Path.; Assoc. Plant Path.*
- \*†W. L. Howard, Ph. D., (Assoc.) *Pomol.; Assoc. Pomol. (Davis).*
- \*†W. G. Hummel, M. S., (Assoc.) *Agr. Ed.; Assoc. Agr. Ed.*
- †T. Fr. Hunt, B. S., (Asst.) *Agr. Ext., Asst. Supt. Farmers' Insts.*
- †R. R. Ingels, B. S., *Asst. in Agr. Ext.*
- \*O. W. Israelsen, M. S., *Instr. Irrig., Coop. U. S. D. A. (Davis).*
- \*†M. E. Jaffa, M. S., *Nutr.*
- \*Katherine D. Jones, B. S., *Asst. in Landsc. Gard.*
- \*†W. P. Kelley, Ph. D., *Agr. Chem. (Riverside).*
- \*†P. B. Kennedy, Ph. D., (Asst.) *Agron.; Asst. Agron.*
- \*†O. J. Kern, (Asst.) *Agr. Ed.; Agr. Ed.*
- \*†M. A. Klein, Ph. D., *Instr. Soil Chem., Bact.; Asst. Soil Chem., Bact.*
- \*†E. J. Lea, M. S., (Assoc.) *Nutr.; Assoc. Nutr.*
- \*†C. B. Lipman, Ph. D., *Soil Chem., Bact.*
- \*†W. E. Lloyd, B. S., *Asst. Poultry Husb. (Davis).*
- \*†R. H. Loughrid, Ph. D., *Soil and Agr. Chem. Emeritus.*
- †Anna M. Lute, A. B., *Sci. Asst. (Detailed by U. S. D. A.).*
- \*†B. A. Madson, B. S. A., (Asst.) *Agron.; Asst. Agron. (Davis).*
- †L. K. Marshall, *Asst. Agron. (Fresno).*
- †F. M. Marquis, D. V. M., *Asst. in Vet. Sci.*
- \*†D. T. Mason, M. S., M. F., *For.*
- \*†W. C. Matthews, A. B., *Instr. Sci. Illustration; Artist.*
- \*†H. A. Mattill, Ph. D., (Asst.) *Nutr.; Asst. in Nutr.*
- †Margaret Mayberry, *Libr. Univ. Farm, Davis.*
- \*†Elwood Mead, D. E., *Rural Institutions.*
- †W. M. Mertz, *Supt. of Cultivation (Riverside).*
- \*†Woodbridge Metcalf, M. S. F., (Asst.) *For.; Asst. For.*
- †M. R. Miller, B. S., *Asst. Chem. (Insecticide Control).*
- \*†R. F. Miller, M. S., (Asst.) *An. Husb.; Asst. An. Husb. (Davis).*
- †J. N. Moore, *Foreman For. Sta. Chico.*
- \*†Mrs. Agnes F. Morgan, Ph. D., (Asst.) *Nutr.; Asst. in Nutr.*
- \*†D. N. Morgan, B. S., (Asst.) *Agr. Sec. of Coll.; Asst. to Dir.*
- †E. L. Morris, A. B., *Field Asst. in Ent. (San Jose).*
- \*†Walter Mulford, F. E., *For.*
- \*†J. W. Nelson, B. S., (Asst.) *Soil Tech.; Asst. Soil Tech.*
- †W. F. Oglesby, A. B., *Asst. Vit.*
- †W. E. Packard, M. S., *Asst. Agron. (El Centro).*
- \*†M. B. Pratt, M. F., (Asst.) *For.; Asst. For.*
- \*†H. J. Quayle, M. S., *Ent. (Riverside).*
- \*†H. S. Reed, Ph. D., *Plant Physiol. (Riverside).*
- \*†C. L. Roadhouse, D. V. M., (Assoc.) *Vet. Sci.; Assoc. Vet.*
- \*†S. S. Rogers, B. S., (Asst.) *Oler.; Asst. Oler. (Davis).*
- †Richard Schmidt, *Orchardist (Davis).*
- \*†W. A. Setchell, Ph. D., *Bot.*
- †L. T. Sharp, B. S., *Asst. Soil Chem., Bact.*
- \*†C. F. Shaw, B. S., *Soil Tech.*
- \*†Alfred Smith, M. A., *Instr. Soil Tech.; Asst. Soil Tech.*
- †C. O. Smith, M. S., *Asst. Plant Path. (Whittier).*
- \*†Elizabeth H. Smith, M. S., (Asst.) *Plant Path.; Asst. Plant Path.*
- \*†R. E. Smith, B. S., *Plant Path.*
- \*†R. T. Stevens, B. S., (Asst.) *Landsc. Gard.; Asst. Landsc. Gard.*
- \*†G. R. Stewart, B. S., (Asst.) *Agr. Chem.; Asst. Agr. Chem.*
- \*†Mattie E. Stover, M. S., *Instr. Nutr.; Asst. in Nutr.*
- \*†A. V. Stubenrauch, M. S., *Pomol.*
- \*†Thomas Tavernetti, B. S., *Asst. to Dean of Univ. Farm School, Davis.*
- \*†R. H. Taylor, B. S., (Asst.) *Pomol.; Asst. Pomol. (Davis).*
- †E. E. Thomas, B. S., *Asst. Chem. (Whittier).*
- \*†J. I. Thompson, B. S., (Asst.) *An. Husb.; Asst. An. Husb. (Davis).*
- \*†Jacob Traum, D. V. M., (Asst.) *Vet. Sci.; Asst. Vet.*
- \*†G. H. True, M. S., *An. Husb. (Davis).*
- \*†W. P. Tufts, M. S., *Instr. Pomol.; Asst. Pomol. (Davis).*
- \*†R. S. Vaile, B. A., *Orchard Mgt. (Riverside).*
- \*†E. P. Van Duzee, *Instr. Ent.; Asst. Ent.*
- \*†E. C. Van Dyke, B. S., M. D., (Asst.) *Ent.; Asst. Ent.*
- \*†H. E. Van Norman, B. S., *Dean Univ. Farm School, Dairy Mgt.; Vice Dir. of Sta. (Davis).*
- †W. H. Volck, *Field Asst. in Ent. (Watsonville).*
- \*†E. C. Voorhies, B. S., *Instr. An. Husb.; Asst. An. Husb. (Davis).*
- †A. E. Way, *Asst. Vit. (Fresno).*



## CALIFORNIA—Continued.

- \*†H. J. Webber, Ph. D., D. Agr., *Plant Path., Dean Grad. School of Tropical Agr.; Dir. Citrus Sta., Riverside.*  
 †W. W. Weir, *Drainage Invest. (Coop. U. S. D. A.).*  
 \*†E. J. Wickson, M. A., *Hort. Emeritus.*  
 \*W. W. Wobus, B. S., *Asst. in Agr. Ed.*

- \*†F. W. Woll, Ph. D., *An. Nutr. (Davis).*  
 \*†C. W. Woodworth, M. S., *Ent.*  
 †H. D. Young, B. S., *Asst. Agr. Chem. (Whittier).*  
 †C. J. Zinn, B. S., *Asst. Soil Tech. (Hynes).*

## COLORADO.

## The State Agricultural College of Colorado and the Agricultural Experiment Station, Fort Collins.

\*College faculty. †Station staff. ‡Extension staff.

- \*C. A. Lory, M. S., LL. D., D. Sc., *President.*  
 \*†C. P. Gillette, M. S., *Dir. of Sta. Zool., Ent. (\*†)*  
 ‡H. T. French, M. S., *Dir. Ext. Service. State Leader.*

- †J. W. Adams, B. S., *Asst. Agron. (Dry Land Invest.), Cheyenne Wells.*  
 \*Inga M. K. Allison,<sup>1</sup> E. B., *Home Econ.*  
 \*C. S. Anderson, B. S., *Instr. An. Husb.*  
 \*Charlotte A. Baker, *Libr.*  
 \*Alice Barnard, B. S., *Instr. Home Econ.*  
 †J. D. Bell, B. S., *Asst. Irrig. Invest. (Coop. U. S. D. A.).*  
 \*R. B. Bentley, B. S., *Instr. An. Husb.*  
 †P. K. Blinn, B. S., *Alfalfa Specialist, Ark. Valley Substa., Rockyford.*  
 \*†Breeze Boyack, M. S., (*Asst.*) *Agron.; Asst. Agron.*  
 †L. C. Bragg, *Asst. Ent.*  
 \*C. I. Bray, M. S., (*Assoc.*) *An. Husb.*  
 \*Charlotte E. Carpenter, B. S., (*Asst.*) *Home Econ.*  
 \*R. G. Coffin, B. S., *Instr. Chem.*  
 †V. M. Cone, B. S. in E., *Irrig. Invest. (Coop. U. S. D. A.).*  
 †M. N. Dillon, B. A., *Asst. Dir. of Ext. Service.*  
 \*Beryl Dixon, B. S., *Instr. Home Econ.*  
 †Earl Douglass, M. S., *Asst. Chem.*  
 \*H. S. Eakins, D. V. S., *Materia Medica.*  
 †W. E. Foard, B. S., *Farm Mgt. Invest.*  
 \*L. S. Foltz, B. S., *Instr. Phys.*  
 \*†G. H. Glover, M. S., D. V. M., *Vet. Med.; Vet.*  
 \*E. R. Gross, B. S., *Instr. Farm Mech.*  
 \*Gertrude Halliday, B. S., *Instr. Home Econ.*  
 \*Miriam M. Haynes, B. S., *Instr. Home Econ.*  
 \*†W. P. Headden, Ph. D., *Chem., Geol.; Chem.*  
 \*†E. B. House, B. S. in E. E., M. S., *Irrig. Engin.*  
 †Herbert Howarth, *Asst. in Horse Brdg.*  
 †James Hutton, *Asst. Horse Brdg. (Coop. U. S. D. A.).*  
 \*†S. A. Johnson, M. S., (*Assoc.*) *Zool., Ent.; Asst. Ent. Dean of Faculty.*  
 \*†C. R. Jones, B. S., (*Asst.*) *Zool., Ent.; Asst. Ent.*  
 \*†Alvin Kezer, M. A., *Agron., Farm Mgr.*  
 \*Nellie M. Killgore, B. S., *Instr. Home Econ.*  
 \*H. E. Kingman, B. S., D. V. S., *Vet. Surg.*  
 †T. F. Limbocker, B. S., *Asst. Hort.*  
 \*†G. M. List, B. S., *Instr. Ent.; Asst. Ent. (Deputy State Ent.).*  
 †W. P. Little, *Horse Brdg. (Coop. U. S. D. A.).*  
 \*†B. O. Longyear, B. S., (*Assoc.*) *For.; Asst. For.*  
 \*†R. A. McGinty, B. S., *Instr. Hort.; Asst. Hort.*  
 \*E. F. McKune, B. S., *Instr. Hort.*  
 \*J. D. Marshall, B. S., (*Asst.*) *Agron.*  
 \*W. J. Morrill, M. F., *For. (State For.).*  
 \*†G. E. Morton, B. S., *An. Husb.*  
 \*T. M. Netherton, A. M., *Prin. Sch. of Agr.*  
 \*†I. E. Newsom, B. S., D. V. S., *Vet. Path.*  
 ‡Mary L. Oberlin, B. S., *in charge Ext. Home Econ.*  
 †Miriam A. Palmer, M. A., *Artist.*  
 †R. L. Parshall, B. S., *Asst. Irrig. Invest.*  
 \*Oliver Pennock, B. S., (*Assoc.*) *Irrig. Engin.*  
 \*F. G. Person, A. M., *Phys.*  
 \*O. S. Rayner, B. S. A., (*Asst.*) *Agron.*  
 \*†O. A. Reinking, M. S., *Instr. Bot.; Asst. Bot.*  
 \*†W. W. Robbins, M. A., *Bot.*  
 \*Elizabeth Robinson, B. A., *Asst. in Zool., Ent.*  
 †C. H. Rohwer, C. E., *Asst. Irrig. Invest.*  
 †W. G. Sackett, B. S., *Bact.*  
 \*†E. P. Sandsten, Ph. D., *Hort.*  
 †C. G. Sargent, B. A., *Specialist in Rural Ed.*  
 †J. W. Tobiska, M. A., *Asst. Chem.*  
 †R. E. Trimble, B. S., *Asst. Irrig. Invest. (Coop. U. S. D. A.).*  
 \*C. E. Vail, M. A., (*Asst.*) *Chem.*  
 ‡W. E. Vaplon, *State Leader Boys' and Girls' Clubs.*  
 \*A. W. Whitehouse, D. V. S., *Vet. Anat.*

## CONNECTICUT.

**Connecticut Agricultural College and the Storrs Agricultural Experiment Station, Storrs (telegraph address, Storrs via Willimantic; railroad station and express address, Eagleville).**

\*College faculty. †Station staff. ‡Extension staff.

\*C. L. Beach, B. Agr., B. S., *President.*

†E. H. Jenkins, Ph. D., *Dir. of Sta. (New Haven).*

†H. J. Baker, B. S., *Dir. Ext. Service and Farmers' Insts. State Leader.*

†A. J. Brundage, *in charge Boys' and Girls' Clubs.*

\*G. H. Campbell, B. S., *Asst. Dairy Husb.*

†L. E. Card, B. S., *Asst. Poultry Husb.*

\*Margaret Costello, B. S., *Instr. Home Econ.*

\*Ethel T. Cousley, *Instr. Home Econ.*

†H. O. Daniels, *Farm Mgt. Dem.*

†I. G. Davis, B. A., *Asst. State Leader and Farm Mgt. Dem.*

\*B. K. Dow, V. S., *Lect. Vet. Sci.*

\*F. W. Duffee, B. S., *Instr. Agron.*

†H. D. Edmond, B. S., *Chem.*

\*†W. M. Esten, M. S., *Bact.*

\*H. L. Garrigus, B. Agr., *Instr. An. Husb., Farm Supt.*

\*A. G. Gulley, M. S., *Hort.*

\*Maud E. Hayes, A. M., *Home Econ.*

\*S. P. Hollister, B. S. A., *Instr. Hort.*

\*J. L. Hughes, A. M., *Instr. Chem.*

†R. E. Jones, *Poultryman.*

\*†H. F. Judkins, B. S., *Instr. Dairy Husb.; Asst. Dairy Husb.*

\*†W. F. Kirkpatrick, B. E., B. Agr., *Poultry Husb.*

\*†G. H. Lamson, jr., M. S., *Zool., Geol.; Zool.*

\*J. A. Manter, B. S., *Instr. Zool., Ent.*

†Miss C. J. Mason, B. Agr., *Asst. Bact.*

\*A. E. Moss, M. F., *Instr. For.*

†K. B. Musser, A. M., *Dairyman.*

\*H. D. Newton, Ph. D., *Chem.*

†L. F. Rettger, Ph. D., *Bact. (Poultry Invest.).*

\*E. W. Sinnott, Ph. D., *Bot., Genetics.*

\*†W. L. Slate, jr., B. S., *Agron.*

\*†B. G. Southwick, B. S., *Instr. Agron.; Asst. Agron.*

†M. E. Sprague, *Asst. in Boys' and Girls' Club Work.*

\*A. T. Stevens, M. S., *Instr. Hort.*

\*G. S. Torrey, A. M., *Instr. Bot.*

\*D. E. Warner, jr., B. S., *Instr. Poultry Husb.*

\*†G. C. White, M. A., *Dairy Husb.*

\*Edwina M. Whitney, Ph. B., *Libr.*

**Connecticut State Agricultural Experiment Station, New Haven.**

†Station staff.

†E. H. Jenkins, Ph. D., *Dir. of Sta.*

†E. M. Bailey, Ph. D., *First Asst. Chem.*

†W. E. Britton, Ph. D., *Ent. (State Ent.).*

†G. P. Clinton, Sc. D., *Bot.*

†Miss V. E. Cole, *Libr.*

†G. L. Davis, *Asst. Chem.*

†I. W. Davis, B. S., *Asst. Ent.*

†Miss E. L. Ferry, M. S., *Research Chem.*

†W. O. Filley, *For. (State For.).*

†H. F. Huber, B. S., *Specialist in Market Gard.*

†D. F. Jones, B. S., *Plant Breeder.*

†Q. S. Lowry, B. S., *Asst. Ent.*

†C. B. Morison, B. S., *Asst. Chem.*

†A. E. Moss, M. F., *Asst. For.*

†T. B. Osborne, Ph. D., D. Sc., *Chief Research Chem.*

†C. E. Shepard, *Asst. Chem.*

†E. M. Stoddard, B. S., *Asst. Bot.*

†J. P. Street, M. S., *Chief Anal. Chem.*

†B. H. Walden, B. Agr., *First Asst. Ent.*

†Miss E. B. Whittlesey, *Herbarium Asst.*

†M. P. Zappe, B. S., *Asst. Ent.*

## DELAWARE.

**Delaware College and the Agricultural Experiment Station, Newark.**

\*College faculty. †Station staff. ‡Extension staff.

\*S. C. Mitchell, Ph. D., LL. D., *President.*

\*††Harry Hayward, M. S. A., *Dean Agr. Dept. Dir. of Sta. Dir. Ext. Service. State Leader. An. Husb. (\*)*

†Hugh Fergus, B. S., *Dairy Ext. (Coop. U. S. D. A.).*

\*†A. E. Grantham, B. S. A., *Agron.*

\*G. A. Harter, Ph. D., *Phys.*

\*†F. B. Hills, M. S., *Instr. An. Husb.; Asst. An. Husb.*

\*C. O. Houghton, B. A., *Zool., Bot.*

†Elizabeth Jefferson, B. S., *Home Econ.*

\*†W. A. Lintner, B. S., *(Asst.) Agron.; Asst. Agron.*

\*†C. A. McCue, B. S., *Hort.*

\*†T. F. Manns, Ph. D., *Soil Bact., Plant Path.*

## DELAWARE—Continued.

- \*†R. R. Pallthorp, B. S., *Instr. Hort.; Asst. Hort.*  
 \*C. L. Penny, Sc. D., *Agr. Chem., Geol.*  
 ‡A. M. Pollard, *Poultry.*  
 \*†R. C. Reed, Ph. B., D. V. M., *Bact., Hyg., Vet. Sci.; An. Path.*

- \*L. W. Tarr, B. S., *Asst. Chem.*  
 †J. J. Taubenhause, Ph. D., *Assoc. Plant Path.*  
 †Firman Thompson, B. S., *Agr. Chem.*  
 \*H. E. Tiffany, M. S., (*Asst.*) *Chem.*  
 †A. C. Whittier, B. S., *Assoc. Chem.*

## State College for Colored Students, Dover.

\*College faculty.

\*W. C. Jason, A. M., D. D., *President.*

- \*Georgine B. Cooke, *Home Econ.*  
 \*Mary H. Harris, *Dom. Sci.*  
 \*W. M. Henry, M. D., *Phys., Chem.*

- \*F. L. Parker, B. S., *Agron., Hort., An. Husb.*

## FLORIDA.

## College of Agriculture and the Agricultural Experiment Station of the University of Florida, Gainesville.

\*College faculty. †Station staff. ‡Extension staff.

\*A. A. Murphree, LL. D., *President of University.*\*††P. H. Rolfs, M. S., *Dean Coll. of Agr. Dir. of Sta. Dir. Ext. Div.*

- \*†M. N. Beeler, B. J., B. S. A., *Instr. Agr. Journalism. In charge Ext. Pubs.*  
 †John Belling, B. S., *Asst. Bot. Editor.*  
 †H. G. Clayton, B. S. A., *Lab. Asst. in An. Indus.*  
 †S. E. Collison, M. S., *Chem.*  
 \*H. S. Davis, Ph. D., *Zool., Bact.*  
 \*W. C. Etheridge, M. S., *Agron.*  
 \*E. R. Flint, Ph. D., M. D., *Chem.*  
 †B. F. Floyd, A. M., *Plant Physiol.*  
 \*W. L. Floyd, M. S., *Bot., Hort. Asst. Dean Coll. of Agr.*  
 \*Isaac Ginsberg, B. S., *Lab. Asst. in Ent.*  
 †K. H. Graham, *Auditor.*  
 \*M. B. Hadley, A. B., *Libr.*  
 †G. L. Herrington, B. S., *Boys' Corn Clubs.*  
 †C. K. McQuarrie, *State Agt., Farm Dem. Work.*  
 †Julius Matz, B. S., *Lab. Asst. in Plant Path.*

- †L. T. Neiland, *Farm Foreman.*  
 \*N. L. T. Nelson, Ph. D., *Instr. Bot., Bact.*  
 †E. S. Pace, B. S., *Dist. Agt., Farm Dem. Work (Northern Fla.).*  
 \*F. M. Rast, jr., M. S., *Instr. Soils and Ferts.*  
 †John Schnabel, *Asst. Hort.*  
 †J. M. Scott, B. S., *An. Indus., Vice Dtr.*  
 †C. D. Sherbakoff, Ph. D., *Assoc. Plant Path.*  
 †A. P. Spencer, M. S., *Dist. Agt., Farm Dem. Work (Southern and Central Fla.).*  
 †H. E. Stevens, M. S., *Plant Path.*  
 †T. Van Hyning, *Libr.*  
 †S. S. Walker, M. S., *Assoc. Chem.*  
 †J. R. Watson, M. A., *Ent.*  
 \*C. L. Willoughby, B. Agr., *An. Husb., Dairying.*

## Florida Agricultural and Mechanical College for Negroes, Tallahassee.

\*College faculty.

\*N. B. Young, M. A., Litt. D., *President.*

- \*B. K. Armstrong, A. M., *Phys.*  
 \*Cella A. Bradley, *Laundering.*  
 \*Julia A. Calvin, *Housekeeping.*  
 \*F. H. Cardozo, *Dir. Agr. Dept., Agr.*  
 \*W. H. Crutcher, *Instr. Truck Gard., Farm Crops, Farm Supt.*  
 \*Evalina A. Davis, *Dir. Home Econ. Dept., Instr. Cooking.*  
 \*Bertha B. Gaines, *Cooking.*  
 \*L. E. Graves, B. S., (*Asst.*) *Agr.*

- \*Jennie V. Hilyer, *Nurse Training.*  
 \*Edna M. Jenkins, *Instr. Sewing.*  
 \*E. B. Jones, B. S., *Chem., Biol.*  
 \*Ellen O. Paige, *Instr. Dressmaking.*  
 \*Sadie M. Potter, *Nurse Training.*  
 \*Jennie M. Price, *Libr.*  
 \*Essie L. Robinson, B. S., *Asst. in Biol. Chem.*  
 \*F. C. Robinson, *Farm Collaborator.*  
 \*D. A. Starks, *Instr. An. Husb.*



GEORGIA.

Georgia State College of Agriculture, University of Georgia, Athens.

\*College faculty. ‡Extension staff.

\*A. M. Soule, Sc. D., F. R. S. A., *President.*

‡J. Phil Campbell, B. S., *Dir. of Ext. Dept.*

- \*J. B. Berr, M. S., *For.*
- †G. L. Bigford, B. S. A., *Asst. in An. Husb.*  
(*Coop. U. S. D. A.*).
- \*H. V. Black, Ph. D., (*Assoc.*) *Chem.*
- \*W. M. Burson, D. V. M., *Vet. Sci.*
- \*J. P. Campbell, Ph. D., *Biol.*
- \*†L. M. Carter, B. S., (*Junior*) *Soil Chem.*
- \*†R. R. Childs, M. S., *Asst. in Agron.*  
(*Coop. U. S. D. A.*).
- \*W. F. Clarke, Ph. D., *Instr. Chem.*
- \*G. A. Crabb, B. S., (*Junior*) *Agron. in*  
*charge Soil Work.*
- †F. H. Denniss, B. S., *Asst. in Dairy Husb.*  
(*Coop. U. S. D. A.*).
- †Lois P. Dowdle, *Asst. in Home Dem.*  
*Work.*
- †J. E. Downing, *in charge Pig Clubs*  
(*Coop. U. S. D. A.*).
- \*J. R. Fain, B. S., *Agron.*
- †G. W. Firor, M. S., *Supervisor Ext.*  
*Schools.*
- \*†J. W. Firor, B. S., (*Adjunct*) *Hort.*
- †J. K. Giles, B. S., *State Agt. Boys' Club*  
*Work.*
- †C. J. Goodell, B. S. A., *Asst. in An. Husb.*  
(*Coop. U. S. D. A.*).
- \*O. T. Goodwin, B. S., (*Adjunct*) *An.*  
*Husb.*
- \*†R. M. Gridley, B. S. A., *Instr. An. Husb.*
- \*L. C. Hart, E. E., *Farm Mech.*
- \*L. L. Hendren, Ph. D., *Phys.*

- †A. L. Hirleman, D. V. M., *Field Agt.*  
*Hog Cholera Work (Coop. U. S. D. A.).*
- †W. H. Howell, B. S., *Asst. in An. Husb.*  
(*Coop. U. S. D. A.*).
- \*M. P. Jarnagin, B. S. A., *An. Husb.*
- \*C. N. Keyser, B. S., *Tutor in Hort.*
- \*†D. D. Long, B. S., *Soil Expert in State*  
*Survey.*
- \*†M. W. Lowry, M. A., (*Adjunct*) *Soil*  
*Chem.*
- \*T. H. McHatton, D. Sc., *Hort.*
- †L. G. Proctor, B. S. A., *Field Agt. Hog*  
*Cholera Control.*
- \*L. E. Rast, B. S. A., (*Junior*) *Agron., in*  
*charge Cotton Indus.*
- \*J. M. Reade, Ph. D., *Bot.*
- \*L. M. Roderick, D. V. M., *Instr. Vet.*  
*Med.*
- \*†S. H. Starr, B. S. A., *Instr. Agron.*
- \*†Paul Tabor, M. S., *Instr. Agron.*
- \*†D. J. Taylor, B. S. A., *Field Agt. in*  
*Poultry Husb. (Coop. U. S. D. A.).*
- \*P. O. Vanatter, *Supt. Field Expts.*
- \*E. G. Welch, B. S. A., *Instr. Farm*  
*Mech.*
- \*†E. C. Westbrook, B. S. A., *Instr. Agron.*
- \*H. C. White, Ph. D., Sc. D., *Chem.*
- \*C. A. Whittle, A. B., *Editor, Libr.*
- †Bessie S. Woods, *Asst. in Home Dem.*  
*Work.*
- \*W. A. Worsham, jr., A. M., *Agr. Chem.*

Georgia Experiment Station, *Experiment.*<sup>1</sup>

Department of Georgia State College of Agriculture at Athens.

†Station staff.

†R. J. H. DeLoach, A. M., *Director.*

- †P. V. Ewing, M. S., *An. Husb.*
- †B. B. Higgins, Ph. D., *Bot., Plant Path.*
- †C. K. McClelland, M. S. A., *Agron.*
- †F. H. Smith, B. S., *Asst. Chem.*

- †H. P. Stucky, B. S., *Hort.*
- †J. C. Temple, M. S., *Bact.*
- †C. A. Wells, M. S., *Chem.*

Georgia State Industrial College for Colored Youths, University of Georgia, Savannah.

\*College faculty. ‡Extension staff.

\*R. R. Wright, A. M., LL. D., *President.*

- \*J. S. Frazier, *Instr. Dairying.*
- \*Mrs. W. G. Hill, *Instr. Dom. Sci.*
- \*Howard Jackson, *Instr. Laundering.*
- \*M. J. Smitherman, *Instr. Poultry Husb.*
- \*D. C. Suggs, Ph. D., *Vice Pres., Dir. Nat.*  
*Sci. Dept.*

- \*R. H. Thomas, *Farm Supt.*
- \*Mrs. W. P. White, *Instr. Sewing, Dress-*  
*making.*
- ‡E. A. Williams, *Farm Dem.*

<sup>1</sup>Telegraph and express address, *Griffin.*

## GUAM.

**Agricultural Experiment Station, Guam, Island of Guam.**

Under the supervision of the Office of Experiment Stations, States Relations Service,  
United States Department of Agriculture.

†Station staff.

†A. C. Hartenbower, B. S., *Agronomist in charge*.

†L. B. Barber, D. V. M., *Vet., An. Husb.* | †Peter Nelson, *Asst.*

## HAWAII.

**College of Hawaii, Honolulu.**

\*College faculty.

\*A. L. Dean, Ph. D., *President. Chemistry.*

\*Alice A. Ball, M. S., *Instr. Chem.*

\*Elizabeth L. Bryan, Sc. D., *Libr.*

\*W. A. Bryan, B. S., *Zool.*

\*Minnie E. Chipman, *Ceramics and Design.*  
(*Dom. Arts.*)

\*L. C. Clark, B. S., (*Asst.*) *Agr.*

\*F. T. Dillingham, B. S., *Chem.*

\*J. F. Illingworth, Ph. D., *Ent.*

\*Florence M. Lee, B. S., (*Asst.*) *Dom. Sci.*

\*Vaughan MacCaughey, B. S. A., *Bot.*

\*J. F. Rock, *Bot.*

\*Arnold Romberg, Ph. D., *Phys.*

\*J. G. Smith, M. A., *Agr.*

\*H. S. Walker, A. B., *Sugar Tech.*

**Agricultural Experiment Station, Honolulu.**

Under the supervision of the Office of Experiment Stations, States Relations Service,  
United States Department of Agriculture.

†Station staff. ‡Extension staff.

†J. M. Westgate, M. S., *Agronomist in charge.*

†F. G. Krauss, *Supt. Ext. Work (Haiku).*

†J. E. Higgins, M. S. A., *Hort.*

†V. S. Holt, *Asst. Hort.*

†M. O. Johnson, M. S., *Chem.*

†A. T. Longley, *in charge Coop. Marketing*  
*Invest.*

†C. A. Sahr, *Asst. Agron.*

†Alice R. Thompson, M. A., *Asst. Chem.*

†J. B. Thompson, B. S., *Asst. Agron. in*  
*charge Glenwood Substa.*

**Hawaiian Sugar Planters' Experiment Station, Honolulu.**

†Station staff.

†H. P. Agee, B. S., *Director.*

†P. S. Burgess, M. S., *Chem.*

†A. Koebele, *Consult. Ent.*

†E. C. Lane, M. S., *Asst. Chem.*

†L. D. Larsen, B. S., *Assoc. Agr.*

†H. L. Lyon, Ph. D., *Path.*

†W. R. McAllep, *Asst. Chem.*

†F. Muir, *Assoc. Ent.*

†W. P. Naquin, B. S., *Agr.*

†R. S. Norris, Ph. D., *Sugar Tech.*

†H. T. Osborn, A. M., *Asst. Ent.*

†R. C. L. Perkins,<sup>1</sup> Sc. D., *Consult. Ent.*

†W. R. R. Potter, *Illustrator Sta. Pubs.*

†O. H. Swezey, M. S., *Ent.*

†F. R. Werthmueller, B. S., *Asst. Chem.*

## IDAHO.

**College of Agriculture and the Agricultural Experiment Station of the University of Idaho, Moscow.**

\*College faculty. †Station staff. ‡Extension staff.

\*M. A. Brannon, Ph. D., *President of University. Bot. (\*)*

\*†E. J. Iddings, B. S., *Dean Coll. of Agr. An. Husb. (\*†)*

\*†J. S. Jones, M. S. A., *Dir. of Sta. Agr. Chem. (\*†)*

‡O. D. Center, M. S., *Dir. of Ext. Service (Boise).*

†L. C. Aicher, B. S., *Supt. Aberdeen Sub-*  
*sta. (Coop. U. S. D. A.)*

\*G. D. Ayers, LL. B., *Lect. Irrig. Law.*

†C. W. Colver, M. S., *Asst. Chem.*

\*†G. J. Downing, B. S., *Asst. in Hort.*

\*†W. C. Edmundson, B. S., *Instr. Hort.;*  
*Asst. Hort.*

\*†E. V. Ellington, B. S., *Dairying; Dairy-*  
*man.*

<sup>1</sup> On leave.

## IDAHO—Continued.

- \*†H. P. Fishburn,<sup>1</sup> M. A., (Asst.) Agr. Chem.; Asst. Chem.  
 \*F. W. Gall, M. A., (Asst.) Bot.  
 \*†G. W. Graves, M. S., Instr. Soils; Asst. in Soils.  
 \*A. R. Hahner, D. V. S., (Asst.) Vet. Sci.  
 \*†E. W. Hamilton, B. S. A., B. M. E., Agr. Engin.; Agr. and Irrig. Engin.  
 †C. B. Hampson, Foreman Caldwell Substa.  
 †Elizabeth Hays, B. S., Asst. in Home Econ. (Boise).  
 \*†C. W. Hickman, B. S., (Asst.) An. Husb.; Asst. An. Husb.  
 †H. W. Hochbaum, B. S. A., State Leader (Boise).  
 \*H. A. Holaday, B. A., Instr. Chem.  
 \*†O. W. Holmes, B. S., (Asst.) Dairying; Asst. Dairyman.  
 \*†Jessie M. Hoover, B. S., Home Econ.  
 \*Hallie Hyde, B. S., Instr. Home Econ.  
 †Amy Kelly, B. S., Lect. in Home Econ. (Boise).  
 \*J. A. Kostalek, Ph. D., (Asst.) Chem.  
 †F. H. Lafrenz, B. S., Supt. Sandpoint Substa.  
 \*Cora I. Leiby, B. S., Instr. Home Econ.  
 \*†Prentice Moore, Instr. Poultry Husb.; Poultryman.  
 †R. E. Neidig, M. S., Ph. C., Research Chem.  
 \*†P. P. Peterson, Ph. D., Soils; Soil Tech.  
 \*†J. J. Putnam, Ph. D., (Assoc.) Bact.; Bact.  
 \*†G. S. Ray, B. S., Asst. in Field Crops.  
 \*†N. S. Robb, B. S., (Asst.) Field Crops; Field Crops.  
 †C. V. Schrack, B. S., Gardener.  
 †J. S. Scott, Farm Supt.  
 \*C. H. Shattuck, Ph. D., For.  
 \*†C. V. Singleton, B. S., Instr. An. Husb.; Asst. An. Husb.  
 \*Mary B. Sweet, B. L. S., Instr. Libr. Sci., Libr.  
 †E. P. Taylor, B. S., Hort. (Boise).  
 \*†C. C. Vincent, M. S. A., Hort.  
 \*C. L. von Ende, Ph. D., Chem.  
 †J. S. Welch, B. S., Supt. Gooding Substa. and Irrig. Invest. (Coop. U. S. D. A.).  
 \*†G. A. Williams, M. S., Instr. Agr. Chem.; Asst. Chem.  
 \*†Mina A. Willis, M. S., Instr. Plant Path.; Plant Path. (State Plant Path.).  
 \*C. B. Wilson, A. M., Instr. Agr. Ed. and Prin. School of Pract. Agr.  
 \*J. E. Wodsedalek, Ph. D., Zool.  
 \*†W. R. Wright, B. S., (Asst.) Bact.; Asst. Bact.

## ILLINOIS.

## College of Agriculture and the Agricultural Experiment Station of the University of Illinois, Urbana.

\*College faculty. †Station staff. ‡Extension staff.

- \*E. J. James, Ph. D., LL. D., President of University.  
 \*††Eugene Davenport, M. Agr., LL. D., Dean Coll. of Agr. Dir. of Sta. Dir. Agr. Ext. Service. Thremmatology. (\*)  
 \*††W. F. Handschin, B. S., Vice Dir. Ext. Service. State Leader. (Asst.) Farm Mgt. (\*) Asst. Chief Farm. Mgt. (†)  
 \*†P. W. Allen, M. S., Asst. Dairy Bact.  
 \*†I. D. Allison, B. S., Assoc. Hort.  
 \*†O. M. Allyn, B. S., Instr. Crop Prod.; First Asst. Crop Prod.  
 \*†J. B. Andrews, B. S., Instr. An. Husb.; First Asst. An. Husb.  
 \*†E. K. Augustus, B. S., Asst. An. Husb.  
 †J. P. Aumer, B. S., Assoc. Chem.  
 \*†E. W. Bailey, M. S., (Asst.) Pomol.; Asst. Chief Plant Brdg.  
 \*D. O. Barto, B. S., Assoc. An. Husb.  
 \*†F. C. Bauer, B. S., Assoc. Soil Fert.  
 \*†Isabel Bevier, Ph. M., Head Dept. Household Sci.; Vice Dir. Ext. Work in Home Econ.  
 †F. J. Blackburn, B. S., Asst. Home Econ.  
 \*†J. C. Blair, M. S. A., Hort.; Chief Hort.  
 \*†S. J. Bole, A. M., Assoc. Pomol.  
 †W. S. Brock, B. S., Instr. Pomol.; First Asst. Pomol.  
 †Fannie M. Brooks, A. B., Asst. Home Econ.  
 \*†H. D. Brown, B. S., Asst. Oler.  
 †A. M. Brunson, B. S., Asst. Plant. Brdg.  
 \*†Sleeter Bull, M. S., Assoc. An. Nutr.  
 \*†Mamie Bunch, B. S., State Leader Household Econ. Dem.  
 \*†W. L. Burlison, Ph. D., (Assoc.) Crop Prod.; Assoc. Chief Crop Prod.  
 \*†W. J. Carmichael, B. S., Instr. An. Husb.; First Asst. An. Husb.  
 †H. C. M. Case, B. S., Asst. Farm Mgt. Dem.  
 †W. H. Chambers, B. S., Asst. Dairy Bact.  
 \*J. H. Checkley, B. S., Asst. Agr. Ext.  
 †C. B. Clevenger, M. S., Asst. Chem.  
 †G. N. Coffey, Ph. D., Asst. State Leader.  
 \*†W. C. Coffey, M. S., Sheep Husb.; Chief Sheep Husb.  
 \*A. S. Colby, M. S., Asst. Pomol.  
 \*†C. S. Crandall, M. S., Pomol.; Chief Plant Brdg.  
 \*†W. T. Crandall, M. S., Assoc. Milk Prod.  
 \*†J. A. Detlefsen, Sc. D., (Asst.) Genetics; Asst. Chief Genetics.

<sup>1</sup>On leave.



## ILLINOIS—Continued.

- †H. A. de Werff, B. S., *Asst. in Soil Phys.*  
†R. W. Dickenson, B. S., *First Asst. in Soil Phys.*  
\*I. W. Dickerson, B. S., *Assoc. Farm Mech.*  
\*†H. B. Dörner, M. S., (*Asst.*) *Flor.; Asst. Chief Flor.*  
\*†C. E. Durst, M. S., *Assoc. Oler.*  
\*E. T. Ebersol, M. S., *Instr. Crop Prod.*  
\*†J. L. Edmonds, B. S., (*Asst.*) *Horse Husb.; Asst. Chief Horse Husb.*  
\*K. J. T. Ekblaw, M. S., *Assoc. Farm Mech.*  
†O. I. Ellis, B. S., *Asst. in Soil Phys.*  
†A. D. Emmett, Ph. D., *Asst. Chief in An. Nutr.*  
\*†D. T. Englis, M. A., *Asst. Flor. Chem.*  
\*F. N. Evans, M. L. A., *Assoc. Landsc. Gard.*  
\*†H. F. T. Fahrnkopf, B. S., *Asst. in Soil Fert.*  
\*†F. A. Fisher, B. S., *Instr. Soil Phys.; First Asst. in Soil Phys.*  
\*Georgia E. Fleming, B. S., *Instr. Textiles.*  
\*†W. J. Fraser,<sup>1</sup> M. S., *Dairy Farming; Chief Dairy Farming.*  
\*†J. J. Gardner, M. S., *Assoc. Pomol.*  
†F. W. Garrett, B. S., *First Asst. in Soil Fert.*  
†G. E. Gentle, B. S., *Asst. in Soil Phys.*  
\*†W. B. Gernert, Ph. D., *Assoc. Plant Brdg.*  
\*†H. C. Gilkerson, B. S., *Asst. in Soil Fert.*  
\*†Harold Gosser, B. S., *Asst. Dairy Husb.*  
\*Corra E. Gray, M. S., *Assoc. Household Sci.*  
\*Greta Gray, M.A., *Instr. Household Sci.*  
†J. H. Greene, M. S., *State Leader Junior Ext.*  
\*†H. S. Grindley, Sc. D., *An. Nutr.; Chief An. Nutr.*  
\*†A. J. Gunderson, B. S., *Instr. Pomol.; First Asst. Pomol.*  
\*Gilbert Gusler, B. S., *Assoc. An. Husb.*  
\*†A. F. Gustafson, M. S., (*Asst.*) *Soil Phys.; Asst. Chief in Soil Phys.*  
†Roy Hansen, B. S., *Asst. in Nitrogen Fixation Research.*  
\*†H. A. Harding, Ph. D., *Head Dept. of Dairy Husb.; Chief Dairy Husb.*  
\*†Claude Harper, B. S., *Asst. An. Husb.*  
\*Florence Harrison, B. S., *Assoc. Household Sci.*  
\*†A. G. Hecht, B. S., *Asst. Flor.*  
\*†N. W. Hepburn, M. S., (*Asst.*) *Dairy Mfrs.; Asst. Chief Dairy Mfrs.*  
\*R. E. Hieronymus, LL. D., *Community Advisor.*  
†S. V. Holt, B. S., *Assoc. Soil Phys.*  
\*Leona Hope, *Instr. Household Sci.*  
\*†C. G. Hopkins, Ph. D., *Agron.; V. Dir. Sta. Chief Agron. and Chem.*  
†E. E. Hoskins, B. S., *Assoc. Soil Fert.*  
\*†R. S. Hulce, M. S., *Assoc. Milk Prod.*  
†James Hutchinson, *Asst. Flor.*  
\*M. E. Jahr, B. S., *Instr. Farm Mech.*  
\*A. W. Jamison, M. S., *Asst. Supt. Agr. Coll. Ext.*  
\*†W. E. Joseph, Ph. D., *Assoc. An. Husb.*  
\*†W. G. Kammlade, B. S., *Asst. An. Husb.*  
†Mary H. Keith, A. M., *Asst. An. Nutr.*  
\*†E. F. Kohmann, Ph. D., *Assoc. Dairy Chem.*  
\*†LeRoy Lang, M. S., *Assoc. Dairy Mfrs.*  
†E. G. Lauterbach, B. S., *Asst. Path. Flor.*  
†W. R. Leighty, B. S., *First Asst. Chem.*  
†Grace Linder, A. B., *Asst. Household Sci. Dem.*  
\*†J. W. Lloyd,<sup>1</sup> M. S. A., *Oler.; Chief Oler.*  
†C. C. Logan, B. S., *Assoc. Soils Ext.*  
\*Wilhelm Miller, Ph. D., (*Asst.*) *Landsc. Hort.*  
\*†H. H. Mitchell, Ph. D., *Assoc. An. Nutr.*  
\*†A. T. Morison, B. S., *Asst. Crop. Prod.*  
\*W. A. K. Morkel, B. S., *Asst. An. Husb.*  
\*†J. G. Mosier, B. S., *Soil Phys.; Chief Soil Phys.*  
\*†H. W. Mumford, B. S., *An. Husb.; Chief An. Husb.*  
†F. W. Muncie, Ph. D., *Assoc. Flor. Chem.*  
\*†W. B. Nevens, B. S., *Asst. Dairy Husb.*  
\*C. R. Newell, M. S., *Instr. Farm Mech.*  
\*†C. I. Newlin, M. S., *Instr. An. Husb. First Asst. An. Husb.*  
\*A. W. Nolan, M. S., (*Asst.*) *Agr. Ext.*  
\*†W. K. Palmer, B. S., *Instr. Flor.; First Asst. Flor.*  
\*Maud E. Parsons, A. B., *Assoc. Household Sci.*  
†F. A. Pearson, B. S., *First Asst. Dairy Husb.*  
†G. L. Peltier, Ph. D., *Assoc. Path. Flor.*  
†Olive Percival, B. S., *Asst. in Home Econ.*  
\*†B. S. Pickett, M. S., (*Asst.*) *Pomol.; Asst. Chief Pomol.*  
\*†M. J. Prucha, Ph. D., (*Asst.*) *Dairy Bact., Asst. Chief Dairy Bact.*  
\*F. H. Rankin, *Supt. Agr. Coll. Ext. Asst. to Dean.*  
\*C. O. Reed, B. S., *Instr. Farm Mech.*  
\*†J. B. Rice, B. S., *Asst. An. Husb.*  
\*†F. C. Richey, B. S., *Asst. in Soil Phys.*  
†H. L. Rietz, Ph. D., *Statistician.*  
\*†Elmer Roberts, B. S., *Instr. Genetics; First Asst. in Genetics.*  
\*C. M. Robinson, M. A., *Olvic Design.*  
\*R. R. Root, M. L. A., (*Asst.*) *Landsc. Gard.*  
†H. A. Ruehe, B. S., *Assoc. Dairy Mfrs.*  
†H. K. Rulison, B. S., *Asst. Dairy Husb.*  
\*†H. P. Rusk, M. S. A., (*Asst.*) *Cattle Husb.; Asst. Chief Cattle Husb.*  
†W. A. Ruth, A. M., *Assoc. Hort. Chem.*  
†W. H. Sachs, B. S., *Assoc. Chem.*  
\*†W. R. Schoonover, B. S., *Asst. in Soil Fert.; Asst. Soil Biol.*  
†E. A. Schwing, B. S., *Asst. in Plant Brdg.*  
\*Lurene Seymour, B. S., *Assoc. Household Sci.*

<sup>1</sup> On leave.

## ILLINOIS—Continued.

- \*†M. E. Slater, B. S., *Asst. An. Nutr.*
- \*†L. H. Smith, Ph. D., *Plant Brdg.; Chief Plant Brdg.*
- \*†W. H. Smith, M. S., *Assoc. An. Husb. Ext.*
- \*†R. R. Snapp, B. S., *Instr. An. Husb.; First Asst. An. Husb.*
- \*†H. J. Snider, B. S., *Asst. in Soil Fert.*
- \*Margaret B. Stanton, A. M., *Instr. Household Sci.*
- \*Grace E. Stevens, A. B., *Instr. Household Sci.*
- \*†Robert Stewart, Ph. D., (*Assoc.*) *Soil Fert.; Assoc. Chief in Soil Fert.*
- \*†L. E. Thorne, B. S., *Asst. in Agr. Statistics and Genetics.*
- \*L. D. Tilton, B. S., *Asst. in Landsc. Ext.*
- †E. F. Torgerson, B. S., *Asst. in Soil Phys.*
- \*†L. J. True, B. S., *Asst. in Dairy Mfrs.*
- †Frank Turner, B. S., *Asst. Dairy Husb.*
- †Ernest Van Alstine, B. S., *Asst. Chief in Soils Lab.*

- \*F. L. Venning, *Instr. Landsc. Design.*
- \*†E. H. Walworth, B. S., *Asst. Crop Prod.*
- †F. M. W. Wascher, B. S., *First Asst. in Soil Phys.*
- \*†O. S. Watkins, B. S., *Assoc. Hort. Chem.*
- \*†H. M. Weeter, A. B., *Asst. Dairy Husb.*
- †H. C. Wheeler, B. S., *Assoc. Soil Phys.*
- \*Ruth Wheeler Ph. D., (*Asst.*) *Household Sci.*
- \*†J. W. Whiseland, B. S., *Asst. An. Husb.*
- †J. E. Whitchurch, B. S., *Assoc. in Soil Fert.*
- \*E. A. White,<sup>1</sup> M. S., *Assoc. Farm Mech.*
- \*†A. L. Whiting, Ph. D., *Assoc. Soil Biol.*
- \*†R. H. Wilcox, B. S., *Asst. An. Husb.*
- \*Anna W. Williams, M. A., *Instr. Household Sci.*
- \*†F. A. Wyatt, Ph. D., *Asst. in Soil Fert.*
- \*†W. W. Yapp, M. S., *Instr. Dairy Husb.; First Asst. Dairy Husb.*
- \*†Joseph Ziesenheim, B. S., *Asst. An. Nutr.*

## INDIANA.

**Purdue University (the School of Agriculture, the Agricultural Experiment Station, and the Departments of Home Economics and Agricultural Extension), La Fayette.**

\*College faculty. †Station staff. ‡Extension staff.

\*W. E. Stone, Ph. D., LL. D., *President of University.*

\*†J. H. Skinner, B. S., *Dean School of Agr. An. Husb. (\*) ; Chief An. Husb. (†)*

†Arthur Goss, M. S., A. C., *Dir. of Sta.*

††G. I. Christie, B. S. A., *Supt. Agr. Ext. State Leader.*

\*William Aitkenhead, M. E., M. A., (*Assoc.*) *Farm Mech.*

†J. M. Aldrich, Ph. D., *Ent. Asst. (Detailed by U. S. D. A.).*

\*H. E. Allen, B. S., (*Asst.*) *An. Husb.*

†L. Evelyn Allison, B. S., *Asst. Bot.*

\*O. G. Anderson, B. S., *Instr. Pomol.*

\*O. H. Anderson, B. S., *Asst. in Dairy-ing.*

\*J. C. Arthur, D. Sc., *Bot. Emeritus.*

\*F. H. Beach, B. S., *Asst. in Hort.*

\*F. C. Beall, B. S. A., *Asst. in An. Husb.*

††J. C. Beavers, B. Agr., *Assoc. in Soils and Crop Ext.*

†R. O. Bitler, B. S., *Deputy State Chem.*

\*Amy E. Bone, B. A., *Asst. in Home Econ.*

\*J. G. Boyle, M. S., M. H., (*Assoc.*) *Hort.*

\*A. L. Bushey, B. S., *Asst. in Agr. Chem. and Soils.*

\*†R. E. Caldwell, B. S., (*Asst.*) *Milk Prod.; Assoc. in Milk Prod.*

\*R. H. Carr, Ph. D., (*Asst.*) *Agr. Chem.*

†D. B. Clark, D. C. M., *Asst. Vet.*

†C. H. Clink, B. S., *Asst. in Serum Prod.*

†T. A. Coleman, *Asst. State Leader, Field Studies.*

†S. D. Conner, M. S., *Assoc. Chem. in Soils and Crops.*

\*Stanley Coulter, Ph. D., LL. D., *Biol.*

\*†R. A. Craig, D. V. M., *Vet. Sci.; Chief Vet.*

†C. O. Cromer, B. S., *Assoc. in Crops.*

†Carleton Cutler, B. S., *Deputy State Chem.*

†J. J. Davis, B. S., *Ent. Asst. in charge (Detailed by U. S. D. A.).*

†R. B. Deemer, B. S., *Deputy State Chem.*

†L. P. Doyle, B. S. A., *Asst. in An. Path.*

††C. B. Durham, B. S., *Assoc. in Hort. Ext.*

\*†R. B. Easson, B. S., *Asst. in Poultry Husb.*

\*P. R. Edgerton, B. S., *Instr. An. Husb.*

†W. L. Elser, B. S., *Asst. Farm Mgt. Dem.*

\*H. E. Enders, Ph. D., (*Assoc.*) *Zool.*

†W. F. Eppler, Ph. G., Ph. C., *Asst. Dairy Chem.*

\*P. N. Evans, Ph. D., *Chem.*

\*E. S. Ferry, B. S., *Phys.*

\*†M. L. Fisher, M. S., *Crop Prod., Farm Mgt.; Asst. Chief in Soils and Crops.*

†W. Q. Fitch, B. S., *Asst. in Agr. Ext.*

††G. M. Frier, B. S., *Asst. in Ext.*

†F. D. Fuller, M. S., *Chief Deputy State Chem.*

‡Lella R. Gaddis, *Asst. in Dom. Sci. Ext.*

<sup>1</sup> On leave.

## INDIANA—Continued

- †Alma L. Garvin, B. S., *Asst. in Home Econ. Ext.*  
†C. R. George, B. S. A., *Assoc. in Dairy Ext.*  
†L. R. George, B. S., *Asst. An. Path.*  
\* A. H. Gilbert, B. S., *Instr. Farm. Mech.*  
\* C. F. Gobble, B. S., (Asst.) *An. Husb.*  
\* Vivian E. Gray, *Asst. in Home Econ.*  
†R. L. Green, B. S., *Insp. State Chem. Dept.*  
†J. D. Harper, B. S., *Asst. in Agr. Ext.*  
†T. W. Harvey, B. S., *Asst. State Leader.*  
\* W. M. Hepburn, M. A., B. L. S., *Libr.*  
\* G. N. Hoffer, M. S., (Asst.) *Bot.*  
\* Amy Howe, Ph. B., *Instr. Home Econ.*  
†A. J. Hunter, B. S., *Asst. in Serum Prod.*  
\* †O. F. Hunziker, M. S., *Dairy Husb.; Chief in Dairying.*  
†H. S. Jackson, A. B., *Chief Bot.*  
†Cora A. Jacobs, A. M., *Seed Analyst (Detailed by U. S. D. A.).*  
†L. L. Jones, B. S., *Asst. in Poultry Ext.*  
†S. C. Jones, M. S., *Asst. in Soils.*  
\* †W. J. Jones, jr., M. S., A. C., *Agr. Chem.; State Chem.*  
†R. J. Kewley, B. S., *Sci. Asst. (Detailed by U. S. D. A.).*  
†L. C. Kigin, D. V. M., *Asst. Vet.*  
†F. G. King, B. S., *Assoc. An. Husb.*  
\* C. D. Kinsman, B. S., *Instr. Farm Mech.*  
\* J. E. Ladd, B. S., *Asst. in Dairying.*  
\* R. A. Lamson, B. S., *Instr. Dairying.*  
\* †W. C. Latta, M. S., *Agr. Supt. Farmers' Insts.*  
†J. A. Linke, A. M., B. S. A., *Asst. in Boys' and Girls' Club Work.*  
\* J. H. Lloyd, B. S., *Instr. in Crops.*  
\* H. R. Lochry, B. S. A., *Instr. Dairying.*  
\* W. E. Lommel, B. S. A., *Instr. Hort.*  
†H. E. McCartney, B. S. A., *Asst. An. Husb.*  
†J. A. McCarty, B. S. A., *Asst. in Agr. Ext.*  
\* R. C. McChord, B. S., *Instr. An. Husb.*  
†A. Roberta McNeill, *Asst. in Dom. Sci. Ext.*  
\* †P. W. Mason, B. S., *Instr. Ent.; Asst. Ent.*  
\* Mary L. Matthews, B. S., *Home Econ. Head Dept. Home Econ.*  
†D. F. Mattson, B. S. A., *Asst. in Creamery Insp.*  
\* Marie B. Miller, B. S., *Instr. Home Econ.*  
\* †H. C. Mills, B. S. A., *Assoc. in Dairy Mgt.*  
†W. O. Mills, B. S., *Asst. in Dairy Ext.*  
†H. C. Mugg, B. S., *Deputy State Chem.*  
\* C. A. Norman, B. S. A. E., *Asst. in Farm Mech.*  
†H. A. Noyes, M. S., *Research Asst. in Hort. Chem.*  
†G. L. Ogle, B. S., *Asst. in Creamery Insp.*  
†O. I. Oshel, A. M., *Asst. in Dairy Ext. (Coop. U. S. D. A.).*  
†Joseph Oskamp, B. S., *Research Asst. in Pomol.*  
†G. A. Osner, Ph. D., *Assoc. Bot.*  
†H. C. Paine, D. V. M., *Assoc. Vet.*  
\* W. R. Palmer, B. S., *Instr. Hort.*  
†Edith Patt, *Asst. in Seed Lab.*  
\* E. J. Petry, M. S., *Instr. Agron.*  
\* †A. G. Phillips, B. S., *Poultry Husb.; Assoc. Poultry Husb.*  
††F. J. Pipal, A. M., *Asst. Bot.*  
†R. J. Posson, B. S., *Asst. in Dairy Ext. (Coop. U. S. D. A.).*  
\* B. N. Prentice, M. F., *Instr. For.*  
\* W. A. Price, B. S. A., *Instr. Ent.*  
†E. G. Proulx, M. S., *Deputy State Chem.*  
\* J. H. Ransom, Ph. D., *Gen. Chem.*  
†C. C. Rees, M. A., *Asst. in Bot.*  
†M. W. Richards, M. S., *Assoc. Hort.*  
\* F. E. Robbins, B. S., *Instr. Crops.*  
†O. S. Roberts, B. S., *Chief Insp. State Chem. Dept.*  
†L. S. Robertson, B. S., *Asst. in Farm Mgt. Dem.*  
†J. H. Roop, B. S., *Deputy State Chem.*  
\* Mary Rose, B. S., *Instr. Home Econ.*  
†A. F. Satterthwait, *Sci. Asst. (Detailed by U. S. D. A.).*  
†C. G. Sauers, B. S. A., *Asst. in Hort. Ext.*  
\* C. B. Sayre, B. S., *Instr. Veg. Gard.*  
††J. W. Schwab, B. S., *Asst. in An. Husb.*  
\* L. H. Schwartz, B. S., *Instr. Poultry Husb.*  
\* O. H. Sears, B. S., *Asst. in Soils.*  
†F. M. Shanklin, A. M., *Asst. in Young People's Club Work.*  
\* W. R. Skelly, B. S., *Asst. in Farm Crops, Agr. Bot.*  
\* J. A. Slipher, B. S., *Instr. Soils.*  
\* W. W. Smith, M. S., (Assoc.) *An. Husb.*  
†Z. M. Smith, A. M., *Asst. in Boys' and Girls' Club Work.*  
\* S. P. Smyth, B. S., *Instr. Poultry Husb.*  
†George Spitzer, Ph. G., B. S., *Assoc. Dairy Chem.*  
\* C. W. Stanley, B. S., *Instr. Agr. Chem.*  
†C. G. Starr, B. S., *Asst. in Swine Prod.*  
\* †H. B. Switzer, B. S., *Instr. Dairy Bact.; Asst. Dairy Bact.*  
†W. W. Sylvester, B. S., *Asst. Farm Mgt. Dem.*  
†P. E. Thompson, B. S., *Asst. in An. Husb. Ext.*  
†D. G. Tower, M. S., *Sci. Asst. (Detailed by U. S. D. A.).*  
\* †James Troop, M. S., *Ent.; Chief Ent.*  
†F. L. Walkey, D. V. M., *Asst. Vet.*  
\* Loretta M. Wallace, M. A., *Instr. Home Econ.*  
\* R. C. E. Wallace, B. S., (Assoc.) *Soils.*  
\* †R. A. Whiting, D. V. M., *Instr. Vet. Sci.; Asst. Vet.*  
\* †A. T. Wiancko, B. S., *Agron.; Chief in Soils and Crops.*  
\* †C. G. Woodbury, M. S., *Hort.; Chief Hort.*



## IOWA.

**Iowa State College of Agriculture and Mechanic Arts and the Agricultural Experiment Station, Ames.**

\*College faculty. †Station staff. ‡Extension staff.

\*R. A. Pearson, M. S., LL. D., *President.*

\*†C. F. Curtiss, D. Sc., *Dean Div. of Agr. Dir. of Sta.*

‡R. K. Bliss, B. S., *Dir. of Agr. Ext.*

\*Mabel Adams, *Instr. Home Econ.*

‡J. H. Allison, jr., B. S., *Ext. Asst. in Pomol.*

†D. E. Bailey, B. S., *Dairy Expt.*

\*A. L. Bakke, M. S., (Asst.) *Veg. Physiol.*

\*R. L. Bancroft, M. S., (Asst.) *Agron.*

‡H. C. Barker, B. S. A., (Ext. Asst.) *Dairy Prod.*

\*†C. E. Bartholomew, M. S., (Assoc.) *Ent.; Asst. in Apiculture.*

\*†S. A. Beach, M. S., *Hort., Vice Dean Div. Agr.; Chief Hort., For.*

†W. C. Bean, B. S., *Soil Surveyor.*

\*††F. W. Beckman, Ph. B., *Agr. Journalism; Bul. Editor.*

\*H. E. Bemis, D. V. M., *Vet. Surg., Obstetrics.*

‡Mabel Bentley, B. S., (Ext. Assoc.) *Home Econ.*

\*H. D. Bergman, D. V. M., *Assoc. Vet. Physiol. and Pharmacology.*

‡E. C. Bishop, M. A., *State Leader Junior Work.*

‡H. A. Bittenbender, B. S. A., (Ext. Assoc.) *Poultry Husb.*

\*R. R. Bolton, D. V. M., (Asst.) *Practice and Diagnosis.*

\*Alma B. Booth, *Instr. Home Econ.*

\*J. W. Bowen, M. A., *Asst. Chem.*

\*Iva L. Brandt, B. S., (Assoc.) *Home Econ.*

\*†C. E. Brashear, B. S., *Asst. to Dean and Dir.*

\*†P. E. Brown, Ph. D., *Soil Bact.; Chief Soil Chem. and Bact.*

\*R. W. Brown, B. S., *Instr. Cheese Making.*

†John Buchanan, B. S., *Supt. Coop. Expts.*

\*J. H. Buchanan, M. S., (Asst.) *Chem.*

\*†R. E. Buchanan, Ph. D., *Dean Div. Indus. Sciences; Chief Bact.*

‡W. A. Buchanan, B. S., (Ext. Assoc.) *An. Husb.*

\*Helen A. Burling, M. S., *Instr. Bact.*

†L. C. Burnett, M. S. A., *Asst. Chief Cereal Brdg. (Coop. U. S. D. A.).*

\*F. W. Cairy, D. V. M., (Asst.) *State Biol. Lab.*

\*Grace Caldwell, *Instr. Home Econ.*

\*H. C. Cameron, *Instr. Agr. Engin.*

‡Jessie Campbell, B. S., *Ext. Asst. Home Econ.*

‡Mrs. Louise H. Campbell, B. S., (Ext.) *Home Econ.*

\*A. F. Carlson, B. S., *Instr. Ice Cream Making.*

\*V. D. Chappel, B. S., *Instr. Milk Testing.*

\*I. D. Clark, A. B., *Asst. Chem.*

\*†Vina E. Clark, *Libr.*

\*R. R. Clem, *Instr. Agr. Engin.*

†F. E. Colburn, *Assoc. Photog.*

\*C. G. Cole, D. V. M., *in charge State Biol. Lab.*

\*W. F. Coover, A. M., *Chem.*

‡J. C. Cort, M. S., *Ext. Asst. in Dairy Prod.*

\*†M. F. P. Costelloe, B. S. C. E., (Assoc.) *Agr. Engin.; Actg. Chief Agr. Engin.*

‡John W. Coverdale, *State Leader of County Agents.*

\*F. H. Culley, B. S., M. L. A., (Assoc.) *Landsc. Gard.*

\*J. C. Cunningham, B. S., *Hort., Bot.*

\*Edith H. Dailey, *Instr. Home Econ.*

‡H. C. Darger, B. S., (Ext. Asst.) *Dairy Mfrs.*

\*W. W. Dimock, B. Agr., D. V. M., *Path. and Bact. Vice Dean Div. Vet. Med.*

‡Charles Dorchester, B. S. A., (Ext. Asst.) *Farm Crops and Soils.*

\*H. S. Doty, M. S., *Instr. Bot.*

†T. R. Douglass, B. S., (Ext. Assoc.) *Farm Crops and Soils.*

\*A. A. Dowell, B. S., *Inst. An. Husb.*

†A. W. Dox, Ph. D., *Chief Chem.*

‡George Dunlop, (Ext. Asst.) *Farm Crops and Soils.*

†Russell Dunn, B. S., *Asst. An. Husb.*

\*E. E. Eastman, M. S., *Instr. Soils.*

\*Ruth Edgerton, B. S., *Instr. Home Econ.*

\*H. L. Eichling, B. S., (Assoc.) *Agron.*

†A. T. Erwin, M. S. A., *Chief Truck Crops.*

†Knutte Espe, B. S., *Asst. in Soil Survey.*

†J. M. Evvard, M. S., *Asst. Chief. An. Husb.*

\*H. E. Ewing, Ph. D., (Asst.) *Zool.*

‡R. K. Farrar, M. S., (Ext.) *Agr. Ed.*

‡F. C. Fenton, B. S. A. E., *Ext. Asst. Agr. Engin.*

\*Myrtle Ferguson, B. S., (Asst.) *Home Econ.*

\*E. F. Ferrin, B. S., (Assoc.) *An. Husb.*

\*G. J. Fink, Ph. D., (Asst.) *Chem.*

\*Genevieve Fisher, B. S., *Assoc. Home Econ., Agr. Ed.*

‡C. L. Fitch, A. M., (Ext. Assoc.) *Truck Gard.*

\*Nellie Fitzgerald, B. S., (Asst.) *Home Econ.*

†L. W. Forman, M. S., *Chief in Field Expts.*

\*C. C. Fowler, Ph. D., (Assoc.) *Physiol. Chem. and Nutr.*

## IOWA—Continued.

- \*Edna Fry, B. S., *Instr. Chem.*  
†W. G. Gaessler, B. S., *Asst. Chief Chem.*  
\*S. L. Galpin, Ph. D., (*Asst.*) *Geol.*  
\*Winifred S. Gettemy, (*Assoc.*) *Home Econ.*  
\*L. S. Gillette, A. M., *Instr. Dairy Husb.*  
†E. S. Girton, B. S., (*Ext.*) *An. Husb.*  
\*Helen R. Goodrich, *Instr. Home Econ.*  
†Laurenz Greene, M. S. A., *Chief Pomol.*  
\*J. D. Grossman, D. V. M., *Asst. in Anat.*  
\*W. F. Guard, D. V. M., *Asst. in Vet. Surg.*  
\*J. E. Guthrie, M. S., (*Assoc.*) *Zool.*  
\*Joan Hamilton, *Instr. Home Econ.*  
\*†B. W. Hammer, B. S. A., (*Assoc.*) *Dairy Bact.; Asst. Chief Dairy Bact.*  
\*Peter Hanson, B. S., *Instr. Agron.*  
\*F. M. Harrington, B. S., (*Asst.*) *Pomol.*  
\*B. M. Harrison, M. S., (*Asst.*) *Zool.*  
†H. B. Hart, B. S., (*Ext. Asst.*) *An. Husb.*  
\*A. J. Hauser, B. S., *Instr. Dairying (Market Milk).*  
†M. A. Hauser, (*Ext.*) *Farm Crops and Soils.*  
\*Annie H. Hawkes, *Instr. Home Econ.*  
\*Ada Hayden, M. S., *Instr. Bot.*  
\*Hanson Hayes, B. S., *Asst. Chem.*  
\*W. R. Hechler, B. S. A., (*Assoc.*) *Farm Crops.*  
†R. S. Herrick, B. S., (*Ext. Assoc.*) *Pomol.*  
\*H. L. Hertz, *Instr. Agr. Engin.*  
\*H. C. Hetzel, B. S., (*Asst.*) *Hort.*  
†M. H. Hoffman, B. S. A. E., (*Ext. Assoc.*) *Agr. Engin.*  
†F. B. Howe, B. S., *Asst. in Soil Survey.*  
\*†H. D. Hughes, M. S. A., *Farm Crops; Chief Farm Crops.*  
\*Jennie Humphrey, (*Asst.*) *Home Econ.*  
\*K. C. Ikeler, M. S., (*Assoc.*) *An. Husb.*  
\*E. E. Isaac, B. S., *Instr. Hort.*  
\*G. W. Iverson, B. S., *Instr. Agr. Engin.*  
\*H. W. Johnson, M. S., *Instr. Agron.*  
\*George Judisch, *Instr. Vet. Pharmacology.*  
†W. G. Kaiser, B. S. A. E., *Asst. Agr. Engin.*  
\*Rosamond H. Kedzie, B. S., *Instr. Home Econ.*  
\*T. O. Kellems, *Asst. Chem.*  
\*J. B. Kelley, B. S. (M. E., A. E.), *Instr. Agr. Engin.*  
\*†H. H. Kildee, B. S. A., *An. Husb., Supt. Dairy Farm; Asst. Chief Dairy Husb.*  
†Charlotte M. King, *Asst. Chief Bot.*  
\*C. C. Kiplinger, B. A., *Instr. Chem.*  
\*†Herman Knapp, B. S. A., *Treas., Registrar.*  
†Neale S. Knowles, (*Ext.*) *Home Econ.*  
\*N. E. Koenig, D. V. M., (*Asst.*) *Biol.*  
\*J. A. Krall, B. S., *Instr. Farm Crops.*  
\*William Kuerth, M. A., (*Assoc.*) *Phys.*  
†S. B. Kuzirian, Ph. D., *Asst. Chem.*  
\*H. M. Lackie, B. S., *Instr. Poultry.*
- †A. R. Lamb, M. S., *Asst. Chem.*  
\*W. H. Lancelot, *Instr. Chem.*  
\*E. W. Lehmann, E. E., B. S. A. E., (*Asst.*) *Agr. Engin.*  
\*Max Levine, B. S., (*Asst.*) *Bact., Hyg.*  
\*P. R. Lisher, B. S., (*Assoc.*) *An. Husb.*  
†O. G. Lloyd, M. S., *Asst. Chief Farm Mgt.*  
\*O. Lloyd-Jones, Ph. D., (*Assoc.*) *An. Husb.*  
†Kate R. Logan, *Asst. State Leader Junior Work.*  
\*J. A. Luthly, B. S., *Instr. Butter-making.*  
†A. C. McCandlish, M. S., *Asst. Dairy Husb.*  
†Murl McDonald, B. S., (*Asst.*) *Agron.*  
\*Kenneth McGregor, B. S., *Instr. An. Husb.*  
\*Clyde McKee, M. S. A., (*Asst.*) *Farm Crops.*  
\*H. M. McLaughlin, A. M., *Asst. Chem.*  
\*Miss W. B. McNeal, B. S., *Instr. Home Econ.*  
\*†G. B. MacDonald, M. F., *For.; Chief For.*  
\*Catharine J. MacKay, *Dean Home Econ. Div.*  
\*Jean G. MacKinnon, M. A., (*Asst.*) *Chem.*  
†T. J. Maney, B. S. A., *Asst. Pomol.*  
\*J. N. Martin, Ph. D., (*Assoc.*) *Bot.*  
\*I. E. Melhus, Ph. D., (*Assoc.*) *Plant Path.*  
\*E. M. Mervine, M. E., *Assoc. Agr. Engin.*  
\*Charles Miller, B. S., *Instr. Agr. Engin.*  
†Mrs. K. S. Miller, B. S., *Asst. Home Econ.*  
\*Helen Monsch, A. M., *Assoc. Home Econ.*  
\*H. M. Montgomery, A. B., *Asst. Chem.*  
\*G. C. Morbeck, M. F., (*Assoc.*) *For.*  
\*Mrs. Sue B. More, A. B., *Asst. Chem.*  
\*†Martin Mortensen, B. S. A., *Dairying; Chief Dairy Husb.*  
\*†H. B. Munger, B. S., *Farm Mgt.; Chief Farm Mgt.*  
\*H. S. Murphy, D. V. M., *Vet. Anat., Histol.*  
\*Charles Murray, B. S., D. V. M., (*Assoc.*) *Vet. Path. and Bact.*  
\*Nellie M. Naylor, B. A., *Instr. Chem.*  
\*N. L. Nelson, D. V. M., (*Asst.*) *Diagnosis.*  
\*H. R. O'Brien, M. A., (*Asst.*) *Agr. Journalism.*  
†F. L. Odell, *Lect. in Dairying.*  
†R. F. O'Donnell, B. S. A., (*Ext. Assoc.*) *An. Husb.*  
\*Anna M. Olsen, B. S., (*Asst.*) *Home Econ.*  
†M. E. Olson, B. S., *Supt. of Field Work.*  
\*F. L. Overly, B. S., (*Asst.*) *Hort.*  
\*†L. H. Pammel, Ph. D., *Bot.; Chief Bot.*  
†R. J. Pearse, M. L. A., *Asst. Landsc. Gard.*  
\*Mary J. Pettit, *Instr. Home Econ.*

## IOWA—Continued.

- \*†W. H. Pew, B. S. A., *An. Husb.*; *Chief An. Husb.*  
 \*Frances Philo, *Instr. Home Econ.*  
 \*H. J. Plagge, M. A., (*Asst.*) *Phys.*  
 †G. P. Plaisance, M. S., *Asst. Chem.*  
 \*J. C. Pomeroy, M. A., *Instr. Phys.*  
 †C. W. Porter, B. S., *Asst. Agr. Engin.*  
 †R. S. Potter, Ph. D., *Asst. Soil Chem.*  
 †Robina M. Rae, *Asst. Libr.*  
 †H. W. Reid, B. S., *Soil Surveyor.*  
 \*R. R. Renshaw, Ph. D., (*Assoc.*) *Org. Chem.*  
 \*I. L. Ressler, A. B., *Instr. Zool.*  
 †Mary B. Richardson, B. D., *Asst. Junior Work, Home Econ.*  
 \*H. W. Richey, B. S. A., *Instr. Pomol.*  
 \*Bertha M. Riley, Ph. B., *Instr. Home Econ.*  
 \*G. W. Roark, jr., B. S., *Asst. Chem.*  
 \*J. T. Rosa, jr., B. S. A., *Instr. Truck Crops.*  
 \*A. W. Rudnick, B. S. A., (*Asst.*) *Dairy-ing.*  
 \*L. A. Rumsey, M. S., *Instr. Chem.*  
 \*Grace E. Russell, B. S., (*Assoc.*) *Dom. Art.*  
 \*C. F. Salt, B. S., *Instr. Agr. Journalism.*  
 \*Grace Schermerhorn, B. S., (*Asst.*) *Agr. Ed.*  
 \*F. H. Schoultz, B. S., *Asst. in Chem.*  
 \*H. A. Scullen, B. S., (*Asst.*) *Zool.*  
 \*J. L. Seal, B. S., *Instr. Bot.*  
 \*W. E. Sealock, A. B., (*Assoc.*) *Agr. Ed.*  
 \*P. S. Shearer, B. S., (*Assoc.*) *An. Husb.*  
 \*C. K. Shedd, B. S. A. E., (*Assoc.*) *Agr. Engin.*  
 †W. E. Simonsen, D. V. M., (*Ext. Asst.*) *Vet. Med.*  
 \*R. E. Smith, M. S., (*Assoc.*) *Soils.*  
 †R. S. Snyder, B. S., *Asst. Soil Chem.*  
 \*L. B. Spinney, B. M. E., B. S. E. E., *Phys.*  
 †W. W. Stanfield, M. S., *Asst. in Farm Crops.*  
 \*†C. H. Stange, D. V. M., *Vet. Med.*, *Dean Div. Vet. Med.*; *Chief Vet.*  
 \*E. W. Stanton, M. S., LL. D., *Vice Pres.*

- \*†W. H. Stevenson, B. S. A., *Agron.*; *Chief in Soils. V. Dtr. Sta.*  
 †K. W. Stouder, D. V. M., (*Ext.*) *Vet. Med.*  
 \*W. J. Suer, B. A., *Instr. Chem.*  
 \*†H. E. Summers,<sup>1</sup> B. S., *Zool.*; *Chief Ent.*  
 †Idaho Sutherland, B. S., (*Ext. Asst.*) *Home Econ.*  
 †P. C. Taff, B. S., (*Ext.*) *Farm Crops. Supt. Corresp. Courses.*  
 \*Laura M. Taggart, B. S., *Instr. Chem.*  
 \*L. A. Test, Ph. D., (*Assoc.*) *Inorg. Chem.*  
 \*Lora Thompson, B. S., *Instr. Home Econ.*  
 †S. H. Thompson, B. S., *Farm Mgt. Dem.*  
 \*M. G. Thornburg, B. S. A., *An. Husb.*  
 \*M. R. Tolstrup, M. S., (*Asst.*) *Dairying.*  
 \*T. R. Truax, B. S., (*Asst.*) *For.*  
 \*†G. M. Turpin, B. S., *Poultry Husb.*; *Chief Poultry Husb.*  
 \*O. C. Ufford, B. S., *Instr. An. Husb.*  
 \*H. W. Vaughan, M. S. A., (*Assoc.*) *An. Husb.*  
 \*†G. H. von Tungeln, M. A., *Chief Rural Sociol.*  
 \*E. R. Waffle, B. S., *Asst. Chem.*  
 \*Edna E. Walls, B. S., *Instr. Home Econ.*  
 \*R. L. Webster, A. B., *Actg. Chief Ent.*  
 \*Heinrich Wehrbein, D. V. M., *Asst. Vet. Invest.*  
 \*H. R. Werner, A. M., Ph. M., *Instr. Zool.*  
 \*R. O. Westley, B. S., *Instr. Farm Crops.*  
 \*F. S. Wilkins, M. S., *Instr. Farm Crops.*  
 \*J. A. Wilkinson, Ph. D., (*Assoc.*) *Phys. Chem. and Inorg. Anal.*  
 †L. E. Willey, D. V. M., (*Ext. Asst.*) *Vet. Med.*  
 \*Clara M. Williams, A. M., *Instr. Home Econ.*  
 \*G. A. Williams, A. B., *Asst. in Zool.*  
 \*Elsie M. Willsey, Ph. B., *Instr. Home Econ.*  
 \*G. M. Wilson, M. A., *Agr. Ed.*  
 \*James Wilson, M. S. A., D. Sc., LL. D., *Agr. Emeritus.*  
 \*D. H. Zentmire, B. S., *Instr. Agron.*  
 \*Zelma Zentmire, B. S., *Asst. Chem.*

## KANSAS.

## Kansas State Agricultural College and the Agricultural Experiment Station, Manhattan.

\*College faculty. †Station staff. ‡Extension staff.

- \*H. J. Waters, B. S. A., LL. D., *President.*  
 \*†W. M. Jardine, B. S. A., *Dean Agr. Div. Dir. of Sta.*  
 †E. C. Johnson, M. A., *Dean and Dir. Div. of Coll. Ext.*

- \*†J. E. Ackert, Ph. D., (*Asst.*) *Zool.*; *Parasitol.*  
 \*†M. F. Ahearn, M. S., *Landsc. Gard.*; *Asst. in Veg. and Forcing Crops.*

- \*W. G. Allee, B. S., *Instr. Phys.*  
 \*R. W. Allen, M. A., *Instr. Zool.*  
 \*Grace Averill, *Asst. in Home Art.*  
 \*A. F. Baird, B. S., *Asst. in Phys.*

<sup>1</sup> On leave.



## KANSAS—Continued.

- \*Rebecca Bartholomew, *Asst. in Dom. Sci.*  
 \*†A. W. Bellomy, B. S., *Asst. Zool.; Asst. in Genetics.*  
 \*J. W. Benner, D. V. M., *Instr. Vet. Med.*  
 \*Mrs. Bessie W. Birdsall, *Dom. Art.*  
 †R. P. Bledsoe, M. S., *Asst. Farm Crops.*  
 \*†R. K. Bonnett,<sup>1</sup> B. S., *Asst. Farm Crops.*  
 †H. J. Bower, M. S., *Soils, Insts. and Dem.*  
 †G. E. Bray, M. E., *Indus. Engin.*  
 †Marian P. Broughten, B. S., *Asst. in Home Econ., Ext. Schools.*  
 †Frances L. Brown, B. S., *Dir. Home Econ.*  
 \*H. W. Brubaker, Ph. D., (*Asst.*) *Chem.*  
 †Walter Burr, *Dir. Rural Service Work.*  
 \*J. H. Burt, D. V. M., (*Asst.*) *Vet. Med.*  
 †M. G. Burton, A. B., *Dir. Corresp. Instr.*  
 \*†L. D. Bushnell,<sup>1</sup> B. S., *Bact.*  
 \*Bertha Buxton, B. S., *Instr. Dom. Art.*  
 †Louise Caldwell, A. B., *Lect. on Home Econ.*  
 \*†L. E. Call, M. S., *Agron.*  
 \*Jane Cape, B. S., *Asst. in Dom. Sci.*  
 †C. E. Cassel, B. S., *Supt. Branch Sta., Tribune.*  
 †R. V. Christian, D. V. M., *Supt. Serum Prod.*  
 †S. P. Clark, B. S., *Supt. Branch Sta., Colby.*  
 \*†W. A. Cochel, B. S., *An. Husb.*  
 †Alice Coulter, B. S., *Lect. on Home Econ.*  
 \*†Ina F. Cowles,<sup>1</sup> B. S., (*Asst.*) *Dom. Art.*  
 \*Jennie L. Cox, B. S., *Instr. Dom. Sci.*  
 †P. E. Crabtree, *Lect. on Farm Mgt.*  
 \*N. A. Crawford, A. M., (*Asst.*) *Indus. Journalism.*  
 †C. C. Cunningham, B. S., *Asst. in Coop. Expts.*  
 \*Mayme Davis, B. S., *Instr. Dom. Sci.*  
 \*W. E. Davis, A. B., (*Asst.*) *Bot.*  
 \*†G. A. Dean, M. S., *Ent.*  
 \*L. R. Dice, Ph. D., *Instr. Zool.*  
 \*†Albert Dickens, M. S., *Hort.*  
 \*†Leila Dunton, M. S., *Asst. in Milling Indus.*  
 \*Hugh Durham, A. M., *Asst. to Dean of Agr.*  
 \*R. R. Dykstra, D. V. M., *Vet. Surg.*  
 \*W. A. Etherton, M. Arch., *Rural Architecture.*  
 \*Emma E. Fecht, *Instr. Dom. Art.*  
 †C. I. Felps, B. S., *Asst. in Highway Engin.*  
 \*Louise Fewell, *Instr. Dom. Art.*  
 \*†J. B. Fitch, B. S., (*Assoc.*) *Dairy Husb.; Asst. Dairy Prod.*  
 \*†L. A. Fitz, B. S., *Milling Indus.*  
 \*E. V. Floyd, B. S., (*Asst.*) *Phys.*  
 †Winifred Fortney, *Lect. on Home Econ.*  
 †O. M. Franklin, D. V. M., *Asst. in Vet. Med.*  
 \*Mildred French, *Asst. in Dom. Art.*  
 \*†P. L. Gainey, M. S., *Instr. Bact.; Asst. Soil Bact.*  
 \*†Ray Gatewood, B. S., *Asst. An. Husb.*  
 †W. S. Gearhart, B. S. C. E., *Highway Engin.*  
 †R. E. Getty, B. S., *Asst. in Forage Crops, Branch Sta., Hays (Coop. U. S. D. A.).*  
 \*†Grace Glasgow, M. S., *Asst. Bact.*  
 \*†L. W. Goss, D. V. M., *Path.; Histol.*  
 \*David Gray, B. S., *Asst. in An. Husb.*  
 \*Helen L. Green,<sup>1</sup> *Asst. in Dom. Sci.*  
 †G. O. Greene, M. S., *Hort.*  
 \*†W. E. Grimes, B. S., (*Asst.*) *Farm Mgt.; Asst. in Farm Mgt.*  
 \*F. C. Gutsche, B. S. Ch. E., *Instr. Chem.*  
 \*W. A. Hagan, D. V. M., *Asst. Path.*  
 \*Margaret H. Haggart, M. S., *Dom. Sci.*  
 †O. E. Hall, A. B., *Dir. Junior Ext.*  
 †A. L. Hallsted, B. S., *Asst. in Dry Farming, Branch Sta., Hays (Coop. U. S. D. A.).*  
 \*J. O. Hamilton, B. S., *Phys.*  
 \*Mary T. Harman, Ph. D., (*Asst.*) *Zool.*  
 \*†N. L. Harris, *Supt. Poultry Plant.*  
 \*Marian Harrison, *Asst. in Dom. Art.*  
 †T. P. Haslam, D. V. M., *Path.*  
 †W. P. Hayes, B. S., *Staple Crop Insect Invest.*  
 †G. K. Helder, *Supt. Branch Sta., Hays.*  
 †L. G. Hepworth, B. S., *Asst. in Feed Control.*  
 †G. S. Hine, B. S., *State Dairy Comr.*  
 \*C. S. Hoar, A. M., *Instr. Bot.*  
 †C. W. Hobbs, D. V. M., *Field Vet.*  
 †A. G. Hogan, Ph. D., *Asst. in An. Nutr.*  
 \*Araminta Holman, *Instr. Home Art.*  
 \*E. L. Holton, A. B., *Education.*  
 \*J. S. Hughes, M. S., (*Asst.*) *Chem.*  
 \*Florence Hunt, *Instr. Dom. Art.*  
 \*†O. W. Hunter, M. S., (*Asst.*) *Bact.; Asst. Dairy Bact.*  
 \*†J. G. Jackley, D. V. M., *Instr. Bact.; Asst. Poultry Disease Invest.*  
 \*J. R. Jenness, B. S., *Instr. Phys.*  
 †Edith E. Jones, B. S., *Research Asst. to Dir.*  
 \*Ethel H. Jones, B. S., *Instr. Dom. Art.*  
 †H. M. Jones, B. S. A., *Deputy State Dairy Comr.*  
 \*Loula Kennedy, A. B., R. N., *Instr. Dom. Sci.*  
 \*†Ralph Kenney, B. S., (*Asst.*) *Farm Crops; Asst. in Farm Crops.*  
 \*H. L. Kent, B. S., (*Assoc.*) *Ed., Prin., Sch. of Agr.*  
 †F. A. Kiene, jr., B. S., *Asst. in Cereal Invest., Branch Sta., Hays (Coop. U. S. D. A.).*  
 \*H. H. King, M. S., (*Assoc.*) *Chem.*

<sup>1</sup> On leave.



## KANSAS—Continued.

- ‡W. J. King, B. S. C. E., *Asst. in Drainage Engin.*  
 †A. E. Langworthy, Ph. C., *Asst. in Feed Control.*  
 †W. L. Latshaw, B. S., *Asst. in Soil Anal.*  
 †L. L. Leeper, *Miller.*  
 \*†D. E. Lewis, B. S., (*Asst.*) *Hort.; Asst. Fruit and Veg. Diseases.*  
 \*†W. A. Lippincott, B. S., *Poultry Husb.*  
 †A. R. Losh, B. S., M. E., *Highway Engin.*  
 \*†C. W. McCampbell, B. S., D. V. M., (*Asst.*) *An. Husb.; Horse Feeding Invest.*  
 \*J. R. McClung, M. A., *Asst. in Chem.*  
 \*Nelle McClurg, A. B., *Asst. in Dom. Sci.*  
 †A. E. McClymonds, B. S., *Supt. Agron. Farm.*  
 †J. W. McColloch, B. S., *Asst. Staple Crop Insect Invest.*  
 †P. E. McNall, M. S., *Farm Mgt. Studies.*  
 \*†Theodore Mackin, B. S., *Instr. Rural Econ.; Rural Econ. Invest.*  
 †Stella Mather, B. S., *Lect. on Home Econ.*  
 \*†L. E. Melchers, M. S., *Instr. Plant Path.; Asst. Plant Path.*  
 \*†F. S. Merrill, B. S., *Asst. Hort.; Asst. Cultural Methods, Fert. Invest.*  
 \*†J. H. Merrill, Ph. D., (*Asst.*) *Ent.; Asst. Fruit Insect Invest.*  
 †E. C. Miller, Ph. D., (*Asst.*) *Bot.; Asst. Plant Physiol.*  
 †O. C. Miller, *Feed. Stuffs Insp.*  
 †E. J. Montague, B. S., *Asst. to Supt. Fruit Insect Invest.*  
 \*R. V. Murphy, B. S., *Asst. Chem.*  
 \*†F. E. Mussehl, B. S., *Asst. Poultry Husb.*  
 \*†R. K. Nabours, Ph. D., *Zool.; An. Genetics Invest.*  
 †A. S. Neale, B. S., *Asst. Supt. Insts., Lect. on Dairy Husb.*  
 †R. N. Needham, Ph. C., *Assoc. Chem. (Anal. Coml. Stock Foods and Prop. Remedies).*  
 \*P. J. Newman, M. S., (*Asst.*) *Chem.*  
 \*†N. E. Olson, B. S., *Asst. Dairy Husb.; Asst. in Dairy Mfrs.*  
 \*Grace A. Palmer, *Asst. in Dom. Art.*  
 \*†A. M. Paterson, B. S., *Asst. An. Husb.*  
 \*†Kurt Peiser, M. S., *Asst. in Dairy Bact.*  
 \*J. P. Poole, B. S., *Asst. in Bot.*  
 †Alice Poulter, B. S., *Lect. on Home Econ.*  
 †C. A. Pyle, D. V. M., *Lect. on An. Husb.*  
 \*Mona R. Quine, *Asst. in Dom. Art.*  
 \*G. E. Raburn, M. S., (*Asst.*) *Phys.*  
 \*Nellie E. Reed, B. S., *Asst. Zool.*  
 \*†O. E. Reed, M. S., *Dairy Husb.*  
 \*E. H. Reisner, Ph. D., (*Asst.*) *Ed.*  
 \*Ida E. Rigney, B. S., *Instr. Dom. Sci.*  
 \*†H. F. Roberts, M. S., *Bot., Plant Brdg.*  
 \*†Cecil Salmon, B. S., (*Assoc.*) *Farm Crops; Asst. Farm Crops.*  
 \*W. H. Sanders, B. S., *Instr. Farm Motors.*  
 \*†F. S. Schoenleber, M. S., D. V. S., M. D., *Vet. Med.*  
 \*†C. A. Scott, B. S., *For. (State For.).*  
 \*†M. C. Sewell, M. S., *Instr. Soils; Asst. in Soils.*  
 \*Olive Sheets, M. S., *Instr. Dom. Sci.*  
 †R. M. Sherwood, B. S., *Lect. on Poultry.*  
 \*Alice E. Skinner, B. S., *Instr. Dom. Sci.*  
 \*A. B. Smith, B. L. S., *Libr.*  
 \*J. E. Smith, M. S., *Instr. Phys.*  
 \*†C. O. Swarson, M. Agr., (*Assoc.*) *Agr. Chem.; Gen. Chem. Invest.*  
 †E. L. Tague, M. A., *Asst. in Protein Invest.*  
 \*†M. C. Tanquary, Ph. D., *Instr. Ent.; Asst. Ent.*  
 †C. P. Thompson, B. S., *Lect. on An. Husb.*  
 †G. E. Thompson, B. S., *Gen. Supt. Substas.*  
 \*†R. I. Throckmorton, B. S., (*Asst.*) *Soils; Asst. in Soils.*  
 †E. M. Tiffany A. B., *Asst. in Corresp. Study.*  
 \*†W. E. Tomson, B. S., *Instr. Dairy Husb.; Asst. Dairy Mfrs.*  
 \*Nola Treat, B. S., (*Asst.*) *Dom. Sci.*  
 †F. J. Turner, *Supt. Branch Sta., Dodge City.*  
 †H. J. C. Umberger, B. S., *Supervisor of Dem. Work.*  
 \*C. A. A. Utt, M. S., *Assoc. Food Anal.*  
 †Ethel N. Vanderwilt, B. S., *Expt. Records.*  
 \*Mrs. Mary P. Van Zile, *Dom. Sci. Dean Home Econ.*  
 \*†C. M. Vestal, B. S., (*Asst.*) *An. Husb.; An. Nutr.*  
 †H. B. Walker, B. S. C. E., *Irrig. and Drainage Engin. (Coop. U. S. D. A.)*  
 \*P. S. Welch, Ph. D., (*Asst.*) *Ent.*  
 \*†E. N. Wentworth, M. S., *An. Brdg.*  
 †R. C. Wiley, B. S., *Assoc. Feed Stuffs and Fert. Anal.*  
 \*†J. T. Willard, D. Sc., *Chem.; Vice Dir. Sta.*  
 †L. C. Williams, B. S., *Asst. to Supt. of Insts.*  
 †B. S. Wilson, B. S., *Asst. in Coop. Expts.*  
 \*F. A. Wirt, B. S. C. E., *Instr. Farm Mach.*  
 \*R. E. Wiseman, B. S., *Asst. in Farm Mach.*  
 \*J. W. Zahnley, B. S., *Instr. Farm Crops.*  
 \*H. F. Zoller, M. S., *Asst. in Chem.*

## KENTUCKY.

College of Agriculture and the Agricultural Experiment Station of the  
State University, Lexington.

\*College faculty. †Station staff. ‡Extension staff.

- \*H. S. Barker, LL. D., *President of University.*  
 \*†J. H. Kastle, Ph. D., *Dean Coll. of Agr. Dir. of Sta. Chem. (\*) Head Research Dept. (†)*  
 ‡Fred Mutchler, Ph. D., *Supt. of Agr. Ext.*  
 †R. M. Allen, M. A., *Head Food and Drug Dept.*  
 †W. S. Anderson, M. A., *Asst. An. Husb.*  
 †S. D. Averitt, M. S., *Chem.*  
 †P. L. Blumenthal, Ph. D., *Research Chem.*  
 \*C. D. Bohannon, A. B., *(Assoc.) Agr. Econ.*  
 †A. L. Breuckner, B. S., *Asst. in Hog Cholera Serum Administration.*  
 †L. A. Brown, Phar. D., *Chem. (Food and Drugs).*  
 †T. R. Bryant, B. S., *Asst. Supt. Agr. Ext.*  
 \*Ruby M. Buckman, B. S., *(Asst.) Household Arts.*  
 †G. D. Buckner, Ph. D., *Chem. (Research).*  
 †J. H. Carmody, B. S., *(Asst.) Hort.*  
 \*Aubyn Chinn, A. B., *(Asst.) Household Sci.*  
 †O. S. Crisler, D. V. M., *Asst. in Hog Cholera Serum Prod.*  
 †H. E. Curtis, M. S., *Head Fert. Dept. Bursar.*  
 \*L. C. Daniels, Ph. D., *(Asst.) Chem.*  
 \*†Hywel Davies, *Purchasing Agt.*  
 †Mary LeG. Didlake, M. S., *Asst. Ent., Bot.*  
 \*†N. R. Elliott, B. S., *Asst. in Hort.*  
 †A. E. Ewan, B. S., *Supt. Expt. Fields, Greenville.*  
 \*J. A. Farra,<sup>1</sup> B. S., *(Asst.) Agr. Engin.*  
 \*†Harrison Garman, D. Sc., *Ent., Zool.; Head Ent. and Bot. Dept.*  
 \*A. H. Gilbert, M. S., *(Assoc.) Bot.*  
 \*†E. S. Good, M. S., *Head An. Husb. Dept. (Beef Cattle, Sheep, Swine).*  
 †E. J. Gott, B. S., *Asst. in Hog Cholera Serum Prod.*  
 \*†Robert Graham, D. V. M., B. S., *Vet. Sci.; Head An. Path. Dept.*  
 †D. J. Healy, M. D., *Bact. (Research).*  
 †L. R. Himmelberger, D. V. M., *Assoc. in Hog Cholera Serum Prod.*  
 \*†J. J. Hooper, M. S. A., *Head An. Husb. Dept. (Dairy Cattle, Horses, Poultry).*  
 †Ed Huston, *Asst. in Dairying.*  
 †Elmer Ingram, *Chief Insp. (Feeds).*  
 †H. H. Jewett, M. A., *Asst. Ent., Bot. (Research).*  
 †R. W. Jones, *Insp. Feeds and Fert.*  
 \*†P. E. Karraker, M. A., *(Asst.) Soil Phys.; Asst. Agron.*  
 †Otis Kercher, B. S., *in charge Pig Club Work (Detailed U. S. D. A.).*  
 \*†E. J. Kinney, B. S., *(Assoc.) Agron.; Asst. Agron.*  
 †J. O. LaBach, M. S., *Chief Chem. (Food and Drug Dept.).*  
 \*F. T. McFarland, B. S., *(Asst.) Bot.*  
 †J. W. McFarlin, B. S., *Chief Insp. Foods (Franklin).*  
 †J. S. McHargue, M. S., *Asst. Chem.*  
 \*†C. W. Mathews, B. S., *Hort.; Head Hort. Dept.*  
 \*R. N. Maxson, Ph. D., *Inorg. Chem.*  
 \*A. McQ. Miller, A. M., *Geol.*  
 \*J. R. Mitchell, A. B., *Instr. Chem.*  
 \*D. S. Myer, B. S., *Instr. Farm Crops.*  
 \*†W. D. Nicholls, M. S., *(Assoc.) Dairy Husb.; Asst. in Dairying.*  
 †H. R. Niswonger, M. A., *Asst. Nursery Insp. (Ent., Bot.).*  
 †J. W. Nutter, *Supt. Dairy Farm.*  
 \*M. L. Pence, M. S., *Phys.*  
 †A. M. Peter, D. Sc., *Head Chem. Dept.*  
 †Robert Pfanstiel, B. S., *Asst. Chem.*  
 \*†W. R. Pinnell, M. D., *(Assoc.) Bact.; Bact. (Food and Drugs).*  
 †R. L. Pontius, V. S., *Asst. in Hog Cholera Serum Administration.*  
 †C. S. Porter, A. B., Ph. G., *Insp. Drugs.*  
 \*Nellie A. Reynolds, M. S., *(Asst.) Home Econ.*  
 \*†George Roberts, M. S., *Agron.; Head Agron. Dept.*  
 †Wm. Rhodes, M. S., *Asst. Chem. (Fert.).*  
 †Walter Schepelman, *Insp. Bakery Sanitation.*  
 †O. M. Shedd, M. S., *Chem. (Research).*  
 †W. H. Simmons, *Asst. in Hog Cholera Serum Prod.*  
 †D. D. Slade, *Poultry Work.*  
 †M. J. Smith, B. S., *Asst. An. Husb.*  
 †W. V. Smith, B. S., *Asst. An. Husb.*  
 †H. D. Spears, M. S., *Chem. (Feed Dept.).*  
 \*W. H. Staebner, A. B., *Instr. Chem.*  
 \*Mary E. Sweeney, M. S., *(Assoc.) Home Econ.*  
 \*D. V. Terrell, C. E., *(Actg.) Rural Engin.*  
 \*R. C. Terrell,<sup>1</sup> C. E., *Rural and Highway Engin.*  
 †W. G. Terrell, *Insp. Foods.*  
 †J. D. Turner, LL. B., *Head Feed Dept.*  
 \*F. E. Tuttle, Ph. D., *Chem.*  
 \*G. H. Vansell, *Asst. in Ent., Zool.*  
 †E. C. Vaughn, A. B., *Asst. Ent. and Bot.*  
 \*A. H. Waitt, *Instr. Chem.*  
 \*W. S. Webb, M. S., *Phys.*  
 †Clara W. White, *Instr. Home Econ.*  
 †R. H. Wilkins, M. S., *Research Asst. in Poultry.*  
 †H. K. Wright, *Asst. in Hog Cholera Work.*

## KENTUCKY—Continued.

**The Kentucky Normal and Industrial Institute for Colored Persons,  
Frankfort.**

\*College faculty.

\*G. P. Russell, A. B., LL. B., *President*.\*J. S. Estil, *Decn.*\*Maude C. Gaddie, *Instr. Dom. Sci.*\*R. W. James, *Dir. Agr. Dept.*\*D. L. Lawson, *Nat. Sci.*\*Mrs. Anna T. O'Neal, *Instr. Dom. Art.*\*Mrs. Addie G. Smith, *Dir. Laundry, Matron.*

## LOUISIANA.

**The Louisiana State University and Agricultural and Mechanical College  
and the State Experiment Station, Baton Rouge; the Sugar Station, Audu-  
bon Park, New Orleans; the North Louisiana Station, Calhoun; and the Rice  
Station (Coop. U. S. D. A.), Crowley.**

\*College faculty. †Station staff. ‡Extension staff.

\*T. D. Boyd, A. M., LL. D., *President*.\*†W. R. Dodson, B. S., *Dean Coll. of Agr Dir. of Stations. Dir. Agr. Ext. Agr. (\*)*†C. B. Anders, B. S., *Asst. An. Husb.*\*T. W. Atkinson, C. E., *Phys.*†W. H. Balis, B. S., *Asst. Supt. Dept.  
Junior Ext. and Home Econ.*†C. J. Barrilleaux, *Farm Mgr., Sugar Sta.*\*A. T. Bell, A. M., *Bot., Bact.*†S. Byall, B. S., *Asst. Chem.*\*J. M. Cadwallader, B. S., (*Asst.*) *An.  
Husb.*†G. D. Cain, B. S., *Chem. in charge of Fert.  
and Feedstuff Lab.*\*C. E. Coates, Ph. D., *Chem.*\*P. J. Cuenot, B. S., *Instr. Chem.*\*†W. H. Dalrymple, M. R. C. V. S., *Vet.  
Sci.; Vet.*†C. W. Davis, B. S., *Asst. to Plant Path.*\*J. Day, B. S., (*Asst.*) *Chem.*\*E. B. Doran, B. S., (*Asst.*) *Agron.*†Mayne Dworak, *Sci. Asst., Seed Lab.*†M. W. Edgerton, Ph. D., *Plant Path.*†E. O. Edson, B. S., *Asst. in charge Poul-  
try Clubs.*\*†F. V. Emerson, Ph. D., *Geol.; in charge  
Soil Survey Work.*†E. H. English, B. S., *Sci. Asst., Live  
Stock Ext. Dept.*†J. B. Garrett, B. S., *Asst. Dir. and Ent.,  
N. La. Sta.*\*W. H. Gates, B. A., *Zool., Ent.*†P. L. Guilbeau, B. S., *State. Insp. Agr.  
Schools.*\*D. V. Guthrie, Ph. D., *Phys.*†W. M. Hall, B. S., *Asst. Chem.*\*†H. H. Hargrove, B. S., *Instr. Chem.;  
Asst. in Sugar Chem., Sugar Sta.*\*†J. L. Hiers, M. S., *Asst. in charge Boys'  
Corn Clubs.*†J. M. Jennings, M. S., *Asst. Chem.*†T. H. Jones, B. S., *Asst. Ent. (U. S. D.  
A.).*\*E. L. Jordan, B. S., *An. Husb.*†Alice Keeler, *State Agt. Home Dem. Work.*†A. P. Kerr, M. S., *Asst. Dir., State Sta.*†E. W. Kerr, M. E., *Mech. Engin.*\*A. F. Kidder, B. S., *Agron.*†R. W. Kiser, B. S., *Specialist in Beef  
Cattle, Live Stock Ext. Dept.*\*J. G. Lee, B. S., *For., Hort.*†J. K. McHugh, *Sec., Sugar Sta.*\*R. L. Menville, M. S., (*Asst.*) *Chem.*†A. R. Moist, B. S., *Specialist in Swine  
Husb., Live Stock Ext. Dept.*†C. C. Moreland, B. S., *Asst. Plant Path.*\*C. F. Moreland, B. S., *Instr. Bot.*†Harry Morris, D. V. M., *Bact., Asst. Vet.*\*Inez Nortland, B. L. S., *Libr.*†G. E. Nesom, M. S., *Supt. Live Stock Ext.  
Dept.*†M. G. Osborn, B. A., *Ed. Weekly Press  
Bul. Sec. Agr. Ext.*†W. L. Owen, B. S., *Bact., Sugar Sta.*†W. R. Perkins, M. S., *Agron., Live Stock  
Ext. Dept.*†F. C. Quereau, M. S., *Asst. Dir., Rice Sta.*†J. A. Redhead, *Asst. in charge Field  
Work.*†J. J. Reymond, B. A., *Asst. Chem.*†E. S. Richardson, B. S., *Supt. Dept.  
Junior Ext. and Home Dem.*†A. F. Rolf, *Specialist in Poultry Husb.,  
Live Stock Ext. Dept.*\*O. W. Rosewall, A. B., *Instr. Zool., Ent.*†M. A. Schneller, Ph. D., *Chem., Sugar  
Sta.*†I. Selecter, B. S., *Soil Chem.*\*L. C. Slater, M. S., *Instr. Chem.*†Mason Snowden, *State Agt., Farm Dem.  
Work.*†C. H. Staples, B. S., *Dairying (Coop. U. S.  
D. A.).*†Mrs. E. L. Strong, *Sec.*†A. D. Summers, *Farm Mgr.*

## LOUISIANA—Continued.

\*†R. P. Swire, B. A., *Treas.*  
 †W. G. Taggart, B. S., *Asst. Dir., Sugar Sta.*  
 ††G. L. Tiebout, B. S., *Hort. Packing and Shipping Dem.*

†E. S. Tucker, *Assoc. Ent.*  
 †E. J. Watson, *Hort., N. La. Sta.*  
 †Turner Wright, B. S., *Specialist, Marketing Farm Products.*

**Southern University and Agricultural and Mechanical College of the State of Louisiana, Scotland Heights, Baton Rouge.**

\*College faculty. ‡Extension staff.

\*J. S. Clark, A. M., Ph. D., *President.*  
 \*C. S. Woodard, B. S., *Dir. Agr. Dept.*

†J. M. Burr, B. S., *Asst. in Ext. Work.*  
 \*Elizabeth B. Cooke, *Instr. Dom. Art.*  
 \*William Gilbert, A. B., *Bot.*  
 \*J. M. Harris, *Instr. Agr.*  
 †A. J. Jones, *Asst. in Ext. Work.*

†T. J. Jordan, *Asst. in Ext. Work.*  
 \*Emma N. Maberry, *Dom. Sci.*  
 \*E. L. Osborne, A. B., *Chem.*  
 †W. L. Toler, *Asst. in Ext. Work.*

## MAINE.

**College of Agriculture and the Agricultural Experiment Station of the University of Maine, Orono.**

\*College faculty. †Station staff. ‡Extension staff.

\*R. J. Aley, Ph. D., LL. D., *President of University.*  
 \*†L. S. Merrill, M. D., *Dean Coll. of Agr. Dir. Agr. Ext. Service.*  
 †C. D. Woods, Sc. D., *Dir. of Sta.*

†H. C. Alexander, *Lab. Asst. Chem.*  
 \*R. H. Ashley, Ph. D., *Instr. Chem.*  
 †Alice W. Averill, *Lab. Asst. Ent.*  
 †G. A. Baker, *Supt. Aroostook Farm, Presque Isle.*  
 †J. M. Bartlett, M. S., *Chem.*  
 \*Dorothea Beach, *Instr. Home Econ.*  
 \*Alice M. Boring, Ph. D., (*Assoc.*) *Zool.*  
 \*J. M. Briscoe, M. F., *For.*  
 \*B. S. Brown, M. S., *Hort.*  
 \*L. M. Burghart, M. A., (*Asst.*) *Chem.*  
 †J. E. Chapman, M. S., *Ext. Instr. Soils.*  
 \*M. A. Chrysler, Ph. D., *Biol.*  
 †D. S. Clark, *Lab. Asst. in Plant Path.*  
 \*W. A. Clemens, Ph. D., *Instr. Biol.*  
 \*H. N. Conser, M. S., (*Asst.*) *Bot.*  
 \*L. S. Corbett, M. S., *An. Indus.*  
 †Maynie R. Curtis, Ph. D., *Asst. Biol.*  
 †W. E. Curtis, *Sci. Aid.*  
 \*C. W. Easley, Ph. D., (*Assoc.*) *Chem.*  
 \*C. W. Eaton, M. F., (*Asst.*) *For.*  
 \*Frances R. Freeman, M. S., *Home Econ.*  
 \*N. A. French, B. S., *Instr. Phys.*  
 †H. G. Gulliver, A. B., *Sci. Aid (Monmouth).*  
 †Marie W. Gurdy, B. S., *in charge Girls' Agr. Clubs.*  
 †R. L. Hammond, *Seed Analyst, Photog.*  
 †H. H. Hanson, M. S., *Assoc. Chem.*  
 \*E. F. Hitchings, C. E., M. S., (*Assoc.*) *Hort.*  
 \*R. M. Holmes, M. A., (*Asst.*) *Phys.*

\*L. V. Jones, LL.B., *Lect. on For. Law.*  
 \*R. K. Jones, B. S., *Libr.*  
 \*Helen A. Knight, Ph. B., *Instr. Home Econ.*  
 \*Alex. Lurie, B. S., *Instr. Hort.*  
 \*R. H. McKee, Ph. D., *Chem.*  
 \*L. H. Merrill, Sc. D., *Biol. and Agr. Chem.*  
 †J. R. Miner, A. B., *Computer.*  
 †R. P. Mitchell, *in charge Boys' Agr. Clubs.*  
 †W. C. Monahan, B. S., *in charge Poultry Husb.*  
 †P. W. Monohon, B. S., *Asst. in Farm Dem.*  
 †W. J. Morse, Ph. D., *Plant Path.*  
 \*H. S. Osler, B. S., (*Asst.*) *Agron.*  
 †Edith M. Patch, Ph. D., *Ent.*  
 \*S. W. Patterson, B. S., *Instr. Biol. and Agr. Chem.*  
 †Raymond Pearl, Ph. D., *Biol.*  
 †Catherine Platts, B. S., *Ext. Instr. Home Econ.*  
 \*G. B. Ramsey, A. M., *Instr. Bot.*  
 †R. W. Redman, B. S., *Asst. Dir. Agr. Ext. Service.*  
 \*A. W. Richardson, B. S., *Instr. Poultry Indus.*  
 †W. H. Rogers, B. S., *Asst. Chem.*  
 \*F. L. Russell, B. S., V. S., *Bact., Vet. Sci.*  
 †E. E. Sawyer, B. S., *Asst. Chem.*  
 †Michael Shapovalov, M. S., *Asst. Plant Path.*  
 \*N. C. Sherwood, B. S., *Instr. An. Husb.*



## MAINE—Continued.

- \*G. E. Simmons, M. S., *Agron.*  
 †Wellington Sinclair, *Supt. Highmoor Farm, Monmouth.*  
 \*S. B. Sink, B. S., *Instr. Soils.*  
 \*H. W. Smith, B. S., (*Asst.*) *Bact.*  
 \*J. S. Stevens, M. S., LL. D., *Phys.*  
 \*J. N. Stevenson, M. S., (*Asst.*) *Chem.*

- †F. M. Surface, Ph. D., *Biol.*  
 \*J. F. Thomas, B. S., *Instr. An. Indus.*  
 †E. R. Tobey, B. S., *Asst. Chem.*  
 \*Frances Whitcomb, B. S., (*Asst.*) *Home Econ.*  
 †C. H. White, *Sci. Aid.*  
 \*L. E. Woodman, Ph. D. (*Assoc.*) *Phys.*  
 †Jacob Zinn, D. Agr., *Asst. Biol.*

## MARYLAND.

**Maryland Agricultural College and the Agricultural Experiment Station, College Park.**

\*College faculty. †Station staff. ‡Extension staff.

- \*†H. J. Patterson, D. Sc., *President of College. Dir. of Sta. Chem.*(†)  
 \*†T. B. Symons, M. S., *Dir. of Ext. Dean Hort.*(\*) *Ent.*(\*) (*State Hort. Work.*).

- †G. H. Alford, B. S., *State Agent.*  
 †R. S. Allen, *Asst. Swine Husb.*  
 \*B. W. Anson, B. S., (*Assoc.*) *Landsc. Gard., Flor. (State Work).*  
 †C. O. Appleman, Ph. D., *Plant Physiol.*  
 †W. R. Ballard, B. S., *Pomol., Small Fruits.*  
 \*Herman Beckenstrater, M. S., *Pomol. (State Work).*  
 \*F. W. Besley, M. F., D. Sc., *Lect. on For.*  
 \*F. B. Bomberger, A. M., *Dean Rural Econ. and Sociol.*  
 †E. H. Brinkley, *Farm Supt.*  
 \*†L. B. Broughton, M. S., *Anal. Chem.; Asst. Chem.*  
 \*†O. C. Bruce, B. S., (*Assoc.*) *Agron., Farm Mach.; Asst. Agron.*  
 \*†S. S. Buckley, M. S., D. V. S., *Vet. Sci.; An. Path.*  
 †K. C. Cole, *Asst. Agron.*  
 \*†Miss L. E. Conner, *Libr.*  
 \*†E. N. Cory, M. S., *Zool.; Ent.*  
 \*Myron Creese, E. E., *Phys.*  
 \*S. C. Dennis, B. S., *Instr. Bact.*  
 \*A. M. Gibson, *Asst. Chem. (State Work).*  
 †W. M. Hillegeist, *Sec. Corresp. Study Dept.*  
 †F. S. Holmes, M. S., *Nut and Stone Fruits.*  
 †Florence J. Hunt, B. S., *Asst. Home Econ.*  
 \*T. D. Jarrell, B. S., *Asst. Chem. (State Work).*  
 \*H. B. McDonnell, M. S., M. D., *Chem. (State Chem.).*

- \*J. E. Metzger, B. S., *Agr. Ed.*  
 \*†J. B. S. Norton, M. S., *Veg. Path., Bot. (State Path.).*  
 ††C. L. Opperman, *Supt. Ridgely Substa. Poultry Ext. Work.*  
 †Katharine A. Pritchett, B. S., *State Agent in Home Dem. Work.*  
 \*†R. C. Rose, M. S., (*Assoc.*) *Bot.; Assoc. Bot.*  
 \*R. H. Ruffner, B. S., *An. Husb.*  
 ††Nickolas Schmitz, M. S., *Agron.*  
 \*†S. B. Shaw, M. S., *Ext. and State Hort. Work.*  
 \*R. W. Silvester, M. S., LL. D., *President Emeritus.*  
 †C. P. Smith, A. M., *Seed Insp.*  
 \*T. H. Spence, A. M., *Vice Pres.*  
 \*†A. C. Stanton, A. M., *Instr. Dairy Husb.; Dairy Invest. Work.*  
 \*E. F. Stoddard, B. S., (*Assoc.*) *Veg. Culture.*  
 \*†W. T. L. Taliaferro, A. B., *Dean Agr. In charge Farm Mgt. and Surveys.*  
 †C. E. Temple, M. S., *Assoc. Plant Path. (State Hort. Work).*  
 †R. H. Walte, B. S., *Poultryman.*  
 \*Albert White, B. S., *Asst. in Veg. Culture.*  
 \*H. J. White, B. S., *Instr. Chem. (State Work).*  
 †T. H. White, M. S., *Veg., Flor.*  
 \*R. C. Williams, B. S., *Asst. Chem. (State Work).*  
 †G. E. Wolcott, M. S., *Dairy Work. (Coop. U. S. D. A.).*

**Princess Anne Academy for Colored Persons, Princess Anne.**

\*College faculty.

\*T. H. Kiah, A. B., *Principal.*

- \*Lida L. Brown, A. B., *Dom. Sci.*  
 \*S. H. Dix, A. B., *Bot., Zool.*  
 \*Alice M. Harris, *Dom. Sci. and Art.*

- \*H. J. Hitch, *Market Gard.*  
 \*J. E. Smith, *Phys. Sci., Agr., Dairying.*

## MASSACHUSETTS.

## Massachusetts Agricultural College and the Agricultural Experiment Station, Amherst.

\*College faculty. †Station staff. ‡Extension staff.

- \*K. L. Butterfield, A. M., LL. D., *President. Head Div. Rural Social Sci. (\*)*  
 \*†W. P. Brooks, Ph. D., *Dir. of Sta. Lect. on Soil Fert. (\*) ; Agr. (†)*  
 ‡W. D. Hurd, M. Agr., *Dir. Ext. Service. Supervisor Short Courses. State Leader.*
- †J. R. Alcock, *Asst. An. Nutr.*  
 †H. L. Allen, *Asst. Lab. Chem.*  
 \*Ernest Anderson, Ph. D., (*Assoc.*) *Chem.*  
 \*P. J. Anderson, Ph. D., (*Asst.*) *Bot.*  
 \*H. E. Baldinger, B. S., *Instr. Dairying.*  
 †C. L. Beals, B. S., *Asst. Chem.*  
 \*F. N. Blanchard, A. B., *Instr., Zool., Geol.*  
 ‡E. N. Bolland, M. S., *in charge Pig Club Work.*  
 †A. I. Bourne, B. A., *Asst. Ent.*  
 ‡W. H. Bronson, B. S., *Instr. Farm Mgt.*  
 †J. P. Buckley, jr., *Asst. Chem.*  
 \*†A. E. Cance, Ph. D., *Agr. Econ.*  
 \*J. S. Chamberlain, Ph. D., *Org. and Agr. Chem.*  
 †G. H. Chapman, M. S., *Research Veg. Physiol., Path.*  
 \*W. W. Chenoweth, M. S., (*Assoc.*) *Pomol.*  
 †O. L. Clark, B. S., *Asst. Veg. Physiol., Path.*  
 \*W. D. Clark, M. F., *For.*  
 †R. L. Coffin, *Asst. Agr.*  
 ‡Laura Comstock, (*Ext.*) *Home Econ.*  
 \*Samuel Coons, *Instr. Dairying.*  
 \*G. C. Crampton, Ph. D., *Insect Morphol.*  
 ‡E. F. Damon, B. S., (*Ext.*) *Agr. Econ.*  
 \*C. H. Fernald, Ph. D., *Hon. Dir. Grad. School.*  
 \*†H. T. Fernald, Ph. D., *Ent.*  
 \*J. A. Foord, M. S., *Farm Admin., Head Div. Agr.*  
 ‡E. H. Forbush, *Supervisors' Corresp. Courses.*  
 †H. J. Franklin, Ph. D., *Cranberry Invest. (East Wareham).*  
 \*†G. E. Gage, Ph. D., (*Assoc.*) *An. Path.; An. Path.*  
 †E. F. Gaskill, B. S., *Asst. Agr.*  
 \*†‡B. N. Gates, Ph. D., (*Assoc.*) *Bee Keeping; Apiarist.*  
 †H. D. Goodale, Ph. D., *Research Biol. (Poultry Husb.).*  
 \*C. E. Gordon, Ph. D., (*Assoc.*) *Zool., Geol.*  
 \*†J. C. Graham, B. S., *Poultry Husb.*  
 \*†C. R. Green, B. Agr., *Libr.*  
 \*C. I. Gunness, B. S. M. E., *Rural Engin.*  
 \*A. K. Harrison, (*Asst.*) *Landsc. Gard.*  
 \*W. R. Hart, A. M., *Agr. Ed.*  
 \*P. B. Hasbrouck, B. S., *Phys.*  
 †H. D. Haskins, B. S., *Chem. in charge Fert. Div.*
- †E. B. Holland, Ph. D., *Assoc. Chem. in charge Research Div.*  
 †J. T. Howard, *Collector.*  
 \*Arao Itano, B. S., *Asst. in Microbiol.*  
 O. A. Jamison, B. S., (*Asst.*) *Dairy-ing.*  
 †C. P. Jones, M. S., *Asst. Chem.*  
 \*Earl Jones, M. S., (*Asst.*) *Agron.*  
 \*†F. C. Kenney, *Treas.*  
 \*E. M. Lewis, A. M., *Dean of Coll.*  
 \*†J. B. Lindsey, Ph. D., *Chem. Vice Dir. of Sta.*  
 \*W. P. B. Lockwood, M. S., *Dairying.*  
 ‡A. G. Lunn, B. S., *Ext. Instr. Poultry Husb.*  
 \*F. A. McLaughlin, B. S., *Instr. Bot.*  
 \*J. C. McNutt, B. S., *An. Husb.*  
 \*C. E. Marshall, Ph. D., *Microbiol. Dir. Grad. School.*  
 \*F. G. Merkle, B. S., *Asst. in Agron.*  
 ‡E. L. Morgan, A. M., (*Ext.*) *Community Planning.*  
 †F. W. Morse, M. S., *Research Chem.*  
 ‡O. A. Morton, (*Ext.*) *Agr. Ed.*  
 ‡Ethel H. Nash, *Ext. Instr. Agr. Ed.*  
 \*A. H. Nehrling, (*Assoc.*) *Flor.*  
 \*†A. V. Osmun, M. S., (*Assoc.*) *Bot.; Actg. Veg. Path. and Physiol.*  
 †J. E. Ostrander, A. M., C. E., *Met.*  
 \*†J. B. Paige, B. S., D. V. S., *Vet. Sci.; Vet.*  
 \*L. F. Payne, B. S., *Instr. Poultry Husb.*  
 \*C. A. Peters, Ph. D., (*Assoc.*) *Inorg. and Soil Chem.*  
 \*John Phelan, M. A., *Rural Sociol.*  
 \*E. L. Quaife, B. S., (*Asst.*) *An. Husb.*  
 \*F. W. Rane, M. F., *Lect. on For. (Boston).*  
 ‡R. W. Rees, B. S., *Ext. Instr. Pomol.*  
 \*W. S. Regan, B. S., *Instr. Ent.*  
 \*H. E. Robbins, M. A., (*Asst.*) *Phys.*  
 †R. W. Ruprecht,<sup>1</sup> M. S., *Asst. Chem.*  
 ‡Marie Sayles, B. S., *Ext. Instr. Home Econ.*  
 \*†F. C. Sears, M. S., *Pomol.*  
 \*Paul Serex, jr., B. S., *Instr. Chem.*  
 †J. K. Shaw, Ph. D., *Research Pomol.*  
 ‡F. A. C. Smith, M. L. A., *Ext. Instr. Civic Improvement.*  
 †P. H. Smith, M. S., *Chem. in charge Feed and Dairy Div.*  
 \*R. G. Smith, B. S., *Asst. in Bot.*  
 \*†G. E. Stone,<sup>1</sup> Ph. D., *Bot.; Veg. Physiol., Path.*

## MASSACHUSETTS—Continued.

- †A. P. Sturtevant, A. B., *Asst. in Vet. Sci.*  
 \*C. H. Thompson, M. S., (*Asst.*) *Hort.*  
 \*H. C. Thompson, B. S., *Asst. in Phys.*  
 \*A. S. Thomson, M. A., (*Asst.*) *Market Gard.*  
 \*†H. F. Tompson, B. S., *Head Dept. of Market Gard.; Market Gardener (Arlington).*

- ‡W. F. Turner, *Ext. Instr. An. Husb.*  
 \*†F. H. H. van Suchtelen, Ph. D., (*Assoc.*) *Microbiol.; Soil Microbiol.*  
 ‡E. D. Waid, B. S., *Asst. Dir. Ext. Service.*  
 †L. S. Walker, B. S., *Asst. Chem.*  
 \*R. J. Watts, B. S., *Sec.*  
 \*†F. A. Waugh, M. S., *Landsc. Gard., Head Div. Hort.; Hort.*  
 \*Charles Wellington, Ph. D., *Chem.*

## MICHIGAN.

**The Michigan Agricultural College and the Agricultural Experiment Station, East Lansing.**

\*College faculty. †Station staff. ‡Extension staff.

- \*F. S. Kedzie, D. Sc., *Acting President. Chem.*  
 \*†R. S. Shaw, B. S. A., *Dean of Agr. Dir. of Sta.*  
 ‡R. J. Baldwin, B. S., *Dir. of Ext.*

- \*†A. C. Anderson, B. S., *Dairy Husb.*  
 \*C. D. Ball, B. S., *Instr. Chem.*  
 \*W. B. Barrows, B. S., *Zool., Physiol., Geol.*  
 \*W. J. Beal, Ph. D., D. Sc., *Bot. (Emeritus).*  
 †E. F. Berger, B. S., *Asst. Chem.*  
 \*†E. A. Bessey, Ph. D., *Bot.*  
 \*A. L. Bibbins, B. S., *Instr. Farm Crops.*  
 \*Zella E. Bigelow, *Instr. Dom. Art.*  
 †H. J. Bock, *Asst. in Expt. Hort.*  
 †G. J. Bouyoucos, Ph. D., *Research Asst. in Soil Phys.*  
 †A. M. Brown, A. B., *Sec., Treas.*  
 \*†C. W. Brown, B. S., *Instr. Bact.; Research Asst. Bact.*  
 \*†G. A. Brown, B. S., (*Asst.*) *An. Husb.; Asst. An. Husb.*  
 \*C. H. Burgess, B. A., *Poultry Husb.*  
 \*J. E. Burnett, B. S., *Asst. Dairy Husb.*  
 \*F. A. Burt, B. S., (*Asst.*) *Geol.*  
 \*D. C. Carpenter, B. S., *Instr. Chem.*  
 †R. G. Carr, B. S., *in charge Chatham Substa.*  
 \*F. W. Chamberlain, B. S., D. V. M., (*Assoc.*) *Comp. Anat.*  
 \*C. W. Chapman, B. S., (*Asst.*) *Phys.*  
 \*†A. K. Chittenden, M. F., *For.*  
 \*A. J. Clark, A. B., (*Assoc.*) *Chem.*  
 \*W. N. Clark, B. S., *Instr. An. Husb.*  
 \*Louise I. Clemens, B. S., *Instr. Home Econ.*  
 \*A. C. Conger, M. A., *Instr. Zool.*  
 \*†L. H. Cooledge, A. M., *Instr. Bact.; Research Asst. Bact.*  
 \*†G. H. Coons, Ph. D., *Instr. Plant Path.; Research Asst. Plant Path.*  
 †Anna Cowles, B. S., *Asst. in Home Econ.*  
 \*J. F. Cox, B. S., (*Asst.*) *Farm Crops.*  
 \*H. T. Darlington, M. S., (*Asst.*) *Bot.*  
 \*H. E. Dennison, B. S., *Instr. Dairy Husb.*  
 \*Richard de Zeeuw, Ph. D., (*Assoc.*) *Bot.*  
 \*C. S. Dunford, M. A., *Instr. Rural Econ.*  
 †W. C. Dutton, B. S., *Asst. Hort.*  
 \*W. E. Eastman, B. S., *Instr. Zool.*

- \*Mary E. Edmonds, B. S., (*Assoc.*) *Dom. Sci.*  
 \*W. E. J. Edwards, B. S., *Instr. An. Husb.*  
 \*†H. J. Eustace, M. H., *Hort.*  
 \*D. T. Ewing, B. S., *Instr. Chem.*  
 \*W. H. French, M. Pd., M. S., *Agr. Ed.*  
 \*Theo. Friedemann, B. S., *Instr. Chem.*  
 \*W. I. Gilson, M. F., *Instr. For.*  
 \*†Ward Giltner, D. V. M., M. S., *Bact. and Hyg.; Bact.*  
 \*G. M. Grantham, B. S., *Instr. Soils.*  
 \*E. L. Grover, B. S., *Asst. in Agr. Ed.*  
 \*Thomas Gunson, *Instr. Hort.*  
 \*†C. P. Halligan, B. S., (*Assoc.*) *Hort.; Asst. Hort.*  
 \*E. T. Hallman, D. V. M., *Assoc. An. Path.*  
 \*K. G. Hancher, M. S., *Instr. Chem.*  
 \*B. E. Hartsuch, A. B., *Instr. Chem.*  
 \*Agnes V. Hatch, B. S., *Instr. Dom. Art.*  
 \*G. T. Hayes, B. S., *Instr. Hort.*  
 \*W. O. Hedrick, Ph. D., *Rural Econ.*  
 \*†R. P. Hibbard, Ph. D., *Instr. Plant Physiol.; Research Asst. Plant Physiol.*  
 \*Bertha M. Hollister, B. A., *Seed Analyst.*  
 \*R. S. Hudson, B. S., *Farm Foreman.*  
 \*R. C. Huston, Ph. D., (*Assoc.*) *Chem.*  
 \*J. P. Hutton, D. V. M., (*Asst.*) *Vet. Surg.*  
 \*G. R. Johnstone, B. A., *Instr. Bot.*  
 †Margaret Justin, B. S., *Home Econ.*  
 \*S. V. Klem, M. F., *Instr. For.*  
 \*W. L. Kulp, M. S., *Instr. Bact.*  
 \*†Mrs. Linda E. Landon, *Libr.*  
 †H. E. Larsen, M. S., *Farm Crops.*  
 \*W. E. Laycock, *Instr. Phys.*  
 \*V. E. LeRoy, M. S., *Instr. Zool.*  
 †E. C. Lindemann, B. S., *Boys' and Girls' Clubs.*  
 \*W. L. Lodge, M. A., (*Assoc.*) *Phys.*  
 \*R. E. Loree, B. S., *Instr. Hort.*  
 \*†L. C. Ludlum, M. S., *Instr. Bact.; Asst. Bact.*  
 \*R. P. Lyman, B. S., M. D. V., *Vet. Med., Dean Vet. Med.*

## MICHIGAN—Continued.

- †J. N. McBride, *Marketing*.  
 \*†M. M. McCool, Ph. D., *Soils*.  
 \*†Eugenia I. McDaniel, A. B., *Instr. Ent.; Asst. Ent.*  
 \*J. S. McDaniel, B. S., D. V. S., (*Asst.*) *Vet. Sci., Pharm.*  
 †I. K. Maystead, B. S., *Farm Crops*.  
 \*W. D. Meltzer, B. S., *Instr. Dairy Mfrs.*  
 \*C. E. Millar, M. S., (*Asst.*) *Soils*.  
 \*F. E. Millen, B. S., *Instr. Bee Keeping*.  
 †E. J. Miller, M. S., *Asst. Chem.*  
 \*†J. F. Morgan, M. A., *Instr. Bact.; Research Asst. Bact.*  
 \*Clara K. Morris, B. S., *Instr. Dom. Sci.*  
 †Eben Mumford, Ph. D., *State Leader of County Agents*.  
 †J. H. Muncie, B. A., *Asst. Path.*  
 \*†H. H. Musselman, B. S., *Assoc. Farm Mech.*  
 \*C. E. Newlander, B. S., *Instr. Dairy Mfrs.*  
 \*†L. Zae Northrop, A. M., M. H. E., (*Asst.*) *Bact. and Hyg.; Asst. Bact.*  
 †I. R. Noteware, in charge *South Haven Substa.*  
 †A. J. Patten, B. S., *Chem.*  
 \*Mrs. Lillian L. Peppard, *Instr. Dom. Art.*  
 \*†R. H. Pettit, B. S. A., *Ent.*  
 \*H. L. Publow, B. S., *Instr. Chem.*  
 \*Alison Ransford, *Instr. Cheese Making*.  
 †Paulina E. Raven, B. S., *Home Econ.*  
 †W. F. Raven, *Ext. Work in Upper Peninsula*.  
 †C. P. Reed, M. Agr., *Farm Mgt.*  
 \*F. H. Reed, A. B., *Instr. Chem.*
- †F. T. Riddell, B. S., *Field Invest. in Dairying*.  
 \*C. N. Rix, *Instr. Farm Mech.*  
 †O. E. Robey, B. S., *Household Engin.*  
 †C. S. Robinson, M. S., *Research Asst. Chem.*  
 \*B. B. Roseboom, jr., B. S., (*Asst.*) *Physiol.*  
 \*F. H. Sanford, M. F., (*Asst.*) *For.*  
 \*D. A. Seeley, B. S., *Instr. Mct.*  
 \*†G. D. Shafer, Ph. D., (*Asst.*) *Ent.; Research Asst. Ent.*  
 \*†V. M. Shoesmith, B. S., *Farm Crops*.  
 \*F. W. Small, B. S., *Instr. Dairy Husb.*  
 \*O. L. Snow, B. S., *Instr. Phys.*  
 \*†F. A. Spragg, M. S., *Instr. Farm. Crops; Research Asst. in Farm Crops*.  
 \*C. H. Spurway, M. Agr., (*Asst.*) *Soils*.  
 \*J. W. Stack, B. S., *Instr. Zool.*  
 †L. R. Taft, M. S., *Supt. Farmers' Insts.*  
 \*Rose M. Taylor, M. A., *Instr. Bot.*  
 \*Bertha E. Thompson, M. A., *Instr. Bot.*  
 †C. A. Tyler, *For.*  
 †C. W. Waid, B. S., *Hort.*  
 \*Andrew Watt, *Asst. in Farm Mech.*  
 †J. W. Weston, B. S., *Ext. Work in Upper Peninsula*.  
 \*†D. B. Whelan, M. S., *Instr. Ent.*  
 \*Georgia L. White, Ph. D., *Dean Home Econ.*  
 †O. K. White, B. S., *Hort.*  
 †O. B. Winter, A. B., *Research Asst. Chem.*  
 \*W. P. Wood, B. Ch. E., *Instr. Chem.*  
 \*E. F. Woodcock, A. M., *Instr. Bot.*  
 \*†G. C. Woodin, B. S. A., *Instr. Ent.; Asst. Ent.*

## MINNESOTA.

College and School of Agriculture and the Agricultural Experiment Station of the University of Minnesota, University Farm, St. Paul.

\*College faculty. †Station staff. ‡Extension staff.

- \*G. E. Vincent, Ph. D., LL. D., *President of University*.  
 \*†A. F. Woods, M. A., D. Agr., *Dean Coll. and School of Agr. Dir. of Sta.*  
 †A. D. Wilson, B. S. in Agr., *Dir. Ext. and Farmers' Insts.*
- \*†J. H. Allison, Ph. B., M. F., *For.; Asst. For.*  
 \*†F. J. Alway, Ph. D., *Soils*.  
 \*†A. C. Arny, B. S. in A., (*Asst.*) *Agron. and Farm Mgt.; Asst. Agron.*  
 \*†R. C. Ashby, B. S., (*Asst.*) *An. Husb.; Asst. An. Husb.*  
 \*†C. H. Bailey, B. S. A., (*Asst.*) *Agr. Chem.; Cereal Tech.*  
 †G. J. Baker, M. S. in A., *Dem. Farm Expert*.  
 †Margaret B. Baker, *Home Econ. Specialist*.  
 †F. E. Balmer, B. S. A., *State Leader*.  
 \*†L. B. Bassett, (*Asst.*) *Farm Mgt.; Asst. Farm Mgt.*
- \*Anna E. Bayha, A. B., *Instr. Textiles, Clothing*.  
 \*Bessie E. Bemis, B. S., *Instr. Foods, Cookery*.  
 \*W. H. Bender, M. Di., Ph. B., (*Assoc.*) *Agr. Ed.*  
 \*†A. H. Benton, M. S., (*Asst.*) *Farm Mgt.; Asst. Farm Mgt.*  
 †O. I. Bergh, B. S., in A., *Supt. Grand Rapids Substa.*  
 \*Josephine T. Berry, M. A., *Home Econ., Nutr.*  
 \*Alice M. Blester, A. M., (*Asst.*) *Nutr.*  
 †Mrs. Margaret J. Blair,<sup>1</sup> (*Asst.*) *Dom. Art.*  
 \*†Andrew Boss, *Agron., Farm Mgt.*

<sup>1</sup>On leave.



## MINNESOTA—Continued.

- \*Fannie C. Boutelle, *Instr. Dom. Econ.*  
 \*†W. L. Boyd, D. V. S., (Asst.) *Vet. Med.; Asst. Vet.*  
 \*†W. G. Brierley, M. S. in H., (Asst.) *Hort.; Asst. Pomol.*  
 \*Clara Brown, A. B., *Instr. Textiles, Clothing.*  
 \*†C. E. Brown, *Instr. Poultry; Poultryman (Crookston).*  
 †Ch. E. Brown, *Ext. Lect.*  
 \*A. M. Bull, (Asst.) *Farm Structures.*  
 †C. P. Bull, B. Agr., *Assoc. Agron.*  
 †Mary L. Bull, *Home Econ. Specialist.*  
 †H. M. Bush, *Farmers' Club Specialist.*  
 \*†LeRoy Cady, B. S. in A., (Assoc.) *Hort.; Assoc. Hort.*  
 †W. F. Cantwell, B. S. in Ch., *Asst. Chem. (An. Nutr. Invest.).*  
 †N. E. Chapman, B. D., A. M., *Ext. Lect. on Poultry.*  
 \*†E. G. Cheyney, B. A., *For.*  
 \*E. B. Cleworth, *Instr. Agr. Engin.*  
 \*†R. C. Dahlberg, B. S. in A., *Instr. Agr. Bot.; Seed Analyst.*  
 \*†William Dietrich, M. S., (Asst.) *An. Husb.; An. Husb. (Crookston).*  
 \*†J. T. E. Dinwoodie, D. V. M., *Asst. Vet.*  
 †R. L. Donovan, B. S. in A., *Dem. Farm Work.*  
 \*†M. J. Dorsey, Ph. D., (Assoc.) *Hort.; Fruit Brdg.*  
 \*J. M. Drew, *Registrar.*  
 \*†E. D. Durand, Ph. D., *Dir. Statistical Research.*  
 †T. A. Erickson, B. A., *State Leader Boys' and Girls' Clubs.*  
 †Agnes Ericson, *Asst. Chem. (An. Nutr. Invest.).*  
 \*A. L. Ewing, M. S., *Instr. Phys.*  
 \*†L. V. France, M. S. in A., *Asst. in Bee Keeping.*  
 \*†E. M. Freeman, Ph. D., *Bot., Plant Path. Asst. Dean.*  
 \*†G. W. Gehrand, Ph. B., (Asst.) *Dairy Husb.; Asst. Dairy Husb.*  
 \*†R. A. Gortner, Ph. D., (Assoc.) *Soil Chem.; Assoc. Soil Chem.*  
 \*†T. L. Haecker, *Dairy and An. Husb., An. Nutr.*  
 †Mildreth J. Haggard, B. A., *Chem. (An. Nutr. Invest.).*  
 \*†E. O. Hanson, *Instr. Dairy Husb.; Asst. Dairy Husb.*  
 †Charles Haralson, *Supt. Fruit Farm (Excelsior).*  
 \*Irma Hathorn, B. A., *Instr. Household Art.*  
 \*†H. K. Hayes, M. S., (Assoc.) *Agron.; Assoc. Agron.*  
 \*†E. C. Higbie, A. B. in Ed., A. M., *Supt. West Cent. School Agr., Morris; Supt. Morris Substa.*  
 \*†H. P. Hoskins, D. V. M., (Asst.) *Vet. Med.; Asst. Vet.*  
 †A. B. Hostetter, B. S., *Supervisor County Agts. (Duluth).*  
 \*†C. W. Howard, M. S., (Asst.) *Ent.; Asst. Ent.*  
 †G. F. Howard, *Lect. in Rural Schools.*  
 †R. P. Ingram, B. S., *Seed Insp.*  
 \*A. W. Jacob, B. S., *Instr. Bot.*  
 \*†Francis Jager, *Apiculture.*  
 \*†E. Louise Jensen, M. A., *Instr. Mycol.; Mycol.*  
 \*A. D. Johnston, *Asst. in Agr. Engin.*  
 †W. H. Kenety, M. S., *Asst. For. (Cloquet).*  
 \*†F. L. Kennard, B. S., *Agron. (Crookston).*  
 \*†Cornelia Kennedy,<sup>1</sup> B. A., *Instr. Agr. Chem.; Asst. Agr. Chem.*  
 †H. C. Kernkamp, D. V. M., *Asst. Vet.*  
 \*†W. P. Kirkwood, *Editor.*  
 \*D. J. Lane, *Instr. Poultry Husb.*  
 †M. S. Larson, M. D., *Consult. An. Path.*  
 \*Georgina Lommen, *Asst. in Agr. Ed.*  
 \*W. F. Lusk, M. A., (Asst.) *Agr. Ed.*  
 \*†T. M. McCall, B. S. in H., *Instr. Hort.; Hort. (Crookston).*  
 †T. B. McCulloch, *Dem. Farm Expert.*  
 \*Mabel McDowell, *Instr. Dom. Sci.*  
 \*†A. J. McGuire, B. S. A., (Assoc.) *Agr., Live Stock Specialist.*  
 †W. A. McKerrrow, *Ext. Specialist.*  
 \*†P. R. McMiller, B. S. in Ch., *Instr. Soils; Asst. Soils.*  
 \*Olive B. MacComber, *Instr. Dom. Art.*  
 †R. S. Mackintosh, B. Agr., M. S., *Lect. on Hort.*  
 \*D. D. Mayne, *Agr. Pedag., Practicums. Prin. School Agr.*  
 \*†P. E. Miller, B. S. in A., *Instr. Agr.; Agron. (Morris).*  
 \*†J. S. Montgomery, B. S. in A., (Asst.) *An. Husb.; Asst. An. Husb.*  
 \*†William Moore, B. A., (Asst.) *Ent.; Asst. Ent.*  
 \*Martha B. Moorhead, M. D., *Lect. on Dom. Hyg.*  
 \*Amy P. Morse, A. B., *Instr. Textiles, Clothing.*  
 \*Agnes Morton, B. S. in H. E., *Instr. Dom. Sci.*  
 \*Dorothy Motl, *Home Nursing.*  
 \*J. L. Mowry, (Asst.) *Agr. Engin.*  
 \*Anna S. Olson, *Asst. Home Econ. (Crookston).*  
 \*†P. J. Olson, M. S., (Asst.) *Agron.; Asst. Agron.*  
 \*†W. L. Oswal, (Asst.) *Agr. Bot.; Asst. Bot., Plant Path.*  
 \*†C. C. Palmer, D. V. M., *Instr. Vet. Med.; Asst. Vet.*  
 \*†T. G. Paterson, B. S. in A., (Asst.) *An. Husb.; Asst. An. Husb.*

<sup>1</sup> On leave.

## MINNESOTA—Continued.

- \*†F. W. Peck, B. S. in A., (Asst.) *Farm Mgt.; Asst. Farm Mgt.*  
 \*Ethel L. Phelps, B. S., *Instr. Textiles, Clothing.*  
 †F. J. Piemeisel, M. S., *Research Asst. in Cereal Rust (Coop. U. S. D. A.)*.  
 \*Olive Potter, *Instr. Dom. Sci. (Morris)*.  
 \*†M. H. Reynolds, B. S., D. V. M., M. D., *Vet. Med., Surg.*  
 \*H. B. Roe, B. S. in E., *Asst. Agr. Engin.*  
 †C. O. Rost, M. A., *Asst. in Soils.*  
 ‡Bess Rowe, B. S. in H. E., *Home Econ. Specialist.*  
 \*†A. G. Ruggler, M. A., (Assoc.) *Ent.; Assoc. Ent.*  
 \*P. Schweickard, *Instr. Rural Social Sci. (Morris)*.  
 \*†C. G. Selvig, M. A., *Supt. NW. School Agr., Crookston; Supt. Crookston Substa.*  
 \*†Harriet W. Sewall, B. A., *Libr.*  
 \*Mrs. T. R. Sewall, *Instr. Dom. Sci. (Crookston)*.  
 ‡Juniata L. Shepperd, M. A., (Asst.) *Dom. Sci.*  
 \*†A. C. Smith, B. S., *Poultry Husb.*  
 †D. O. Spriestersbach, M. S., *Research Asst. in Agr. Chem.*  
 \*†E. C. Stakman, Ph. D., (Asst.) *Plant Path.; Asst. Plant Path., Bact.*  
 \*†J. T. Stewart, C. E., *Agr. Engin.*  
 \*A. V. Storm, Ph. B., M. A., *Agr. Ed.*  
 \*†R. W. Thatcher, M. A., *Agr. Chem.*  
 ††M. J. Thompson, B. S. A., M. S., *Supt. NE. Dem. Farm and Substa., Duluth.*
- \*†A. G. Tolaas, M. S., *Instr. Bact.; Asst. Plant Path.*  
 \*Mabel B. Trilling, (Asst.) *Textiles, Clothing.*  
 \*Olive N. Tuttle, B. S., *Instr. Textiles, Clothing.*  
 †W. D. Valleau, B. S. in A., *Research Asst. in Hort.*  
 \*†F. L. Washburn, M. A., *Ent.*  
 \*†R. M. Washburn, M. S. A., *Dairy Mfrs.; Dairy Husb.*  
 \*Mildred Weigley, *Instr. Foods, Cookery.*  
 ‡C. H. Welch, *Sec. Farmers' Insts.*  
 \*Marion Weller, (Asst.) *Home Econ.*  
 \*†Richard Wellington, M. S., (Asst.) *Pomol.; Pomol.*  
 \*†J. P. Wentling, M. A., (Assoc.) *For.; Assoc. For.*  
 \*†R. M. West, B. A., (Asst.) *Agr. Chem.; Asst. Agr. Chem.*  
 \*Lucile Wheeler, A. M., (Asst.) *Foods, Cookery.*  
 \*H. B. White, B. S. in A., *Asst. Farm Mech.*  
 \*L. R. Whitson, E. M., *Asst. Agr. Engin.*  
 †G. H. Wiggin, B. S., *Asst. For. (Cloquet)*.  
 \*Susan Wilder, B. S. in H. E., *Instr. Dom. Art (Morris)*.  
 \*†J. J. Willaman, M. S., *Instr. Agr. Chem.; Asst. Agr. Chem.*  
 \*Grace I. Williams, B. S., (Asst.) *Foods, Cookery.*  
 †Warren Williamson, M. A., *Asst. Ent.*  
 \*J. J. Wilson, *Asst. in Agr. Engin.*  
 \*Arthur Woolman, B. S. in C. E., *Instr. Agr. Engin. (Morris)*.

## MISSISSIPPI.

Mississippi Agricultural and Mechanical College and Agricultural Experiment Station, *Agricultural College*; the Delta Branch Station, *Stoneville*; the Holly Springs Branch Station, *Holly Springs*; and the McNeill Branch Station, *McNeill*.

\*College faculty. †Station staff. ‡Extension staff.

\*G. R. Hightower, B. S., *President.*

††E. R. Lloyd, M. S., *Dir. of Stations. Dir. of Ext. Work.*

- †C. T. Ames, B. S., *Asst. Dir., Holly Springs Sta.*  
 \*E. Barnett, V. M. D., *An. Husb.*  
 \*†J. M. Beal, M. S., (Actg.) *Bot., For.; Actg. Bot.*  
 †Connie J. Bonslagel, A. B., *Specialist, Home Econ.*  
 \*†C. F. Briscoe, Ph. D., *Bact.*  
 \*T. J. Brooks, *Markets, Rural Econ.*  
 †H. B. Brown, Ph. D., *Plant Brdg.*  
 ‡O. M. Camburn, B. S., *Asst. Dairyman.*  
 †I. W. Carpenter, B. S., *Specialist, An. Husb.*  
 †J. W. Carpenter, jr., B. S., *Specialist, Agr. Engin.*
- \*†E. P. Clayton, *Poultry Husb.*  
 ‡C. A. Cobb, B. S., *Boys' Corn Clubs (Jackson)*.  
 \*T. W. Davis, B. S., *Libr.*  
 †B. A. Early, *Specialist, Rural Schools.*  
 †B. V. Evans, *Farm Foreman, McNeill.*  
 †F. W. Farley, B. S., *Specialist, An. Husb. (Jackson)*.  
 †E. B. Ferris, B. S., *Asst. Dir., McNeill Sta.*  
 †H. K. Gayle, B. S., *An. Husb.*  
 \*F. J. Gray, B. S., *Asst. Chem.*  
 \*E. P. Gullledge, B. S., *Instr. Dairy Husb.*  
 \*†W. F. Hand, Ph. D., *Chem. (State Chem.)*.

## MISSISSIPPI—Continued.

- \*†H. H. Harned, B. S., *Instr. Bact.; Asst. Bact.*  
 \*†R. W. Harned, B. S., *Zool.; Ent. (State Ent.)*.  
 ‡L. A. Higgins, B. S., *Dairyman*.  
 \*†W. J. Jennings, *Sec.*  
 ‡J. C. Kean, *Supt. Live Stock*.  
 ‡J. P. La Master, B. S., *Asst. Dairyman (Brookhaven)*.  
 \*R. K. Lloyd, B. S., *Instr. Hort.*  
 \*†W. N. Logan, Ph. D., *Geol.*  
 ‡J. S. McBee, B. S., *Farm Foreman, Holly Springs*.  
 ‡D. W. McIlwain, *Farm Supt.*  
 \*†A. B. McKay, M. S., *Hort.*  
 ‡J. F. McKay, B. S., *Market Specialist*.  
 \*H. D. McMurtray, B. S., (*Asst.*) *Phys.*  
 \*B. J. Marshall, B. S., M. D., *Hyg. and Sanitation*.  
 \*H. W. Moody, Ph. D., *Phys.*  
 \*†J. S. Moore, M. S., *Dairy Husb.*  
 \*H. W. Nelson, *Instr. Cotton Grading*.  
 \*†H. O. Pate, M. S., (*Asst.*) *Markets, Rural Econ. Farm Mgt. Specialist*.  
 ‡R. H. Pate, B. S., *Supt. Farmers' Insts.*  
 ‡T. M. Patterson, B. S., *Specialist, Community Organization*.  
 ‡W. P. Pevy, *Farm Foreman, Stoneville*.  
 ‡Susie V. Powell, *State Agent, Home Econ. (Jackson)*.  
 \*†E. M. Ranck, V. M. D., *Vet. Med.; Vet. (State Vet.)*.  
 ‡Maude Reeves, B. S., *Specialist, Home Econ. (Meridian)*.  
 ‡J. R. Ricks, M. S., *Agron. Vice Dir. of Sta.*  
 \*Louis Roark, B. A., *Instr. Geol.*  
 \*J. C. Robert, V. M. D., Ph. G., M. D., *Agron. Dir. School of Agr.*  
 \*†‡Daniels Scoates, B. S. C. E., *Agr. Engin.*  
 \*H. J. Smith, B. S., (*Assoc.*) *Chem.*  
 \*H. Solomon, B. S., *Instr. Chem.*  
 \*A. D. Suttle, B. S., *Instr. Agron.*  
 \*W. B. Tisdale, B. S., *Instr. Bot.*  
 ‡Lula Tunison, A. B., *Poultry Specialist (Lumberton)*.  
 \*B. M. Walker, Ph. D., *Vice Pres.*  
 ‡G. B. Walker, B. S., *Asst. Dir., Delta Sta., Stoneville*.  
 \*J. T. West, B. S., (*Assoc.*) *Agron.*  
 ‡E. F. White, M. S., *Specialist, Hort.*  
 \*†C. E. Wilson, M. A., *Instr. Zool.; Asst. Ent.*  
 ‡R. S. Wilson, B. S., *State Agent, Coop. Dem. Work (Jackson)*.

## Alcorn Agricultural and Mechanical College, Alcorn.

\*College faculty.

\*L. J. Rowan, Ph. D., *President*.

- \*P. S. Bowles, B. S., (*Asst.*) *Agr.*  
 \*Louise Edwards, *Nurse Training*.  
 \*R. A. Gordon, B. S., M. D., *Phys., Chem.*  
 \*G. W. Irwin, *Dairying*.  
 \*Alice G. Laws, *Instr. Sewing*.  
 \*L. J. McKay, B. S., (*Asst.*) *Agr.*  
 \*Mrs. Sadie H. Miller, *Instr. Home Econ.*  
 \*W. S. Nelson, *Laundry*.  
 \*F. J. Norwood, B. S., *Agr., Farm Supt.*  
 \*A. E. Perkins, Ph. D., *Biol. Sci.*  
 \*H. T. Tanner, *Hort.*

## MISSOURI.

## College of Agriculture and the Agricultural Experiment Station of the University of Missouri, Columbia.

\*College faculty. ‡Station staff. ‡Extension staff.

- \*A. R. Hill, Ph. D., LL. D., *President of University*.  
 \*†F. B. Mumford, M. S., *Dean Coll. of Agr. Dir. of Sta. An. Husb. (\*†)*  
 ‡A. J. Meyer, B. S. A., *Sec. of Agr. Ext.*  
 \*†H. O. Allison, M. S., (*Assoc.*) *An. Husb.; An. Husb.*  
 \*†J. G. Babb, M. A., *Sec.*  
 \*†L. S. Backus, D. V. M., (*Asst.*) *Vet. Sci.; Vet.*  
 ‡W. H. Baker, B. S. A., (*Ext. Asst.*) *Soils and Crops*.  
 ‡P. B. Barker, M. A., (*Ext. Assoc.*) *Farm Crops*.  
 ‡Babb Bell, B. S. in H. E., (*Ext. Asst.*) *Home Econ.*  
 \*†F. L. Bentley, B. S. A., *Asst. An. Husb.*  
 \*†P. M. Brandt, A. M., *Supt. Short Courses. Asst. to Dean and Dir.*  
 \*E. B. Branson, Ph. D., *Geol.*  
 \*W. E. Brentzel, B. S. A., *Asst. in Bot.*  
 \*W. G. Brown, Ph. D., *Indus. Chem.*  
 \*Sidney Calvert, A. M., *Org. Chem.*

## MISSOURI—Continued.

- †L. F. Childers, M. S. A., (*Ext. Assoc.*)  
*Soils.*  
 \*Jesse Cline, B. S., *Asst. in Bot.*  
 \*†W. B. Combs, B. S., *Asst. in Dairy Husb.*  
 \*†J. W. Connaway, D. V. S., M. D., *Vet.*  
*and Comp. Med.; Vet.*  
 \*W. C. Curtis, Ph. D., *Zool.*  
 \*H. L. Dahm, A. M., *Asst. in Chem.*  
 †C. E. Deardorff, B. S. A., *Asst. in Soil*  
*Survey.*  
 †D. H. Doane, M. S. A., (*Ext.*) *Farm Mgt.*  
*State Leader.*  
 \*G. S. Dodds, Ph. D., (*Asst.*) *Zool.*  
 \*Mary V. Dover, Ph. D., *Instr. Chem.*  
 †F. L. Duley, A. M., *Research Asst. in*  
*Soils.*  
 \*†Frederick Dunlap, F. E., *For.*  
 \*E. J. Durand, D. Sc., (*Assoc.*) *Bot.*  
 \*†A. J. Durant, A. M., *Research Asst. in*  
*Vet. Sci.*  
 \*†C. H. Eckles, M. S., *Dairy Husb.*  
 \*†R. H. Emberson, B. S., (*Asst.*) *Rural*  
*Ed. Boys' and Girls' Clubs.*  
 \*†A. R. Evans, B. S. A., *Instr. Farm*  
*Crops; Expt. Field Work.*  
 †F. W. Faurot, B. S., (*Ext. Asst.*) *Hort.*  
 \*†J. S. Gardner, B. S., *Asst. in Hort.*  
 †B. F. Geisert, B. S. A., *Asst. in Agr. Ext.*  
 \*†J. B. Gingery, D. V. M., (*Asst.*) *Vet.*  
*Sci.; Vet., Supt. Hog Cholera Serum*  
*Lab.*  
 \*H. R. Glascock, Ph. D., *Instr. Zool.*  
 \*†R. M. Green, B. S. A., *Instr. Farm Mgt.;*  
*Asst. in Farm Mgt.*  
 †D. J. Griswold, A. M., *Research Asst. in*  
*An. Husb.*  
 \*S. D. Gromer, A. M., (*Asst.*) *Agr. Econ.*  
 \*†Howard Hackedorn, B. S. A., (*Asst.*)  
*An. Husb.; An. Husb.*  
 \*†J. C. Hackleman, A. M., (*Asst.*) *Farm*  
*Crops; Farm Crops.*  
 \*†L. D. Haigh, Ph. D., (*Asst.*) *Agr. Chem.;*  
*Agr. Chem.*  
 \*J. F. Hamilton, *Asst. in Vet. Sci.*  
 \*†Leonard Haseman, Ph. D., (*Assoc.*)  
*Ent.; Nursery Insp.*  
 \*†M. E. Hays, B. S., *Asst. in Hort.*  
 \*H. C. Heaton, B. S. A., *Asst. in Vet. Sci.*  
 \*†A. H. Hollinger, B. S. A., *Instr. Ent.;*  
*Asst. Ent., Deputy Nursery Insp.*  
 \*†R. R. Hudelson, A. M., (*Asst.*) *Soils;*  
*Soils.*  
 \*†E. H. Hughes, B. S. A., (*Asst.*) *An.*  
*Husb.; An. Husb.*  
 \*Hazel Huinkins, A. B., *Asst. in Chem.*  
 †M. I. Hurley, *Ext. Asst. in An. Husb.*  
*and Vet. Sci.*  
 \*†C. B. Hutchison, M. S., *Farm Crops.*  
 \*Clella Jenkins, A. B., *Asst. in Home Econ.*  
 \*†O. R. Johnson, A. M., (*Asst.*) *Farm*  
*Mgt.; Farm Mgt.*
- \*†M. Lucile Keene, A. M., *Instr. Bot.;*  
*Asst. Bot.*  
 \*†M. A. R. Kelley, B. S. (M. E., A. E.),  
*Instr. Agr. Engin.; Asst. Agr. Engin.*  
 \*††H. L. Kempster, B. S., (*Assoc.*) *Poultry*  
*Husb.; Poultry Husb.*  
 \*Hildegard Kneeland, A. B., *Instr. Home*  
*Econ.*  
 †E. W. Knobel, B. S., *Asst. in Soil Survey.*  
 †H. H. Krusekopf, B. S., *Asst. in Soil*  
*Survey.*  
 \*†W. H. Lawrence, M. S., *Hort.*  
 \*T. H. Leaming, B. S., *Asst. in Chem.*  
 \*†C. A. LeClair, A. M., (*Asst.*) *Soils;*  
*Asst. in Soils.*  
 \*George Lefevre, Ph. D., *Zool.*  
 \*†H. F. Libby, *Asst. in Vet. Sci.*  
 †C. D. Loeb, A. B., *Asst. in Chem.*  
 \*†E. M. McDonald, B. S., (*Asst.*) *Farm*  
*Crops; Farm Crops.*  
 \*H. F. Major, B. S., (*Asst.*) *Landsc.*  
*Gard. and Supt. of Grounds.*  
 \*W. E. Manervall, Ph. D., *Instr. Bot.*  
 \*†C. E. Mangels, B. S. A., *Asst. in Agr.*  
*Chem.*  
 \*J. W. Marden, D. Sc., *Instr. Chem.*  
 \*O. B. Meunch, A. M., *Asst. in Chem.*  
 \*†M. F. Miller, M. S. A., *Soils.*  
 \*Elizabeth Monroe, A. B., *Asst. in Bot.*  
 \*†C. R. Moulton, Ph. D., (*Asst.*) *Agr.*  
*Chem.; Agr. Chem.*  
 \*Emma B. Mundy, A. M., *Asst. in Bot.*  
 \*C. E. Neff, B. S., *Asst. in Farm Crops.*  
 \*H. G. Newlon, A. B., *Asst. in Chem.*  
 \*†L. S. Palmer, Ph. D., (*Asst.*) *Dairy*  
*Chem.; Dairy Chem.*  
 \*†E. C. Pegg, M. F. (*Asst.*) *For.; Asst.*  
*For.*  
 †Carrie L. Pencost, B. S. Ed., *Ext. Instr.*  
*Home Econ.*  
 \*†R. B. Price, M. S., *Treas.*  
 †J. B. Rand, B. S. A., *Ext. Asst. in An.*  
*Husb. and Vet. Sci.*  
 ††J. O. Rankin, M. A., *Agr. Editor.*  
 †G. W. Reavis, *Supervisor of Boys' and*  
*Girls' Clubs.*  
 \*†G. M. Reed, Ph. D., *Bot.*  
 \*†T. C. Reed, A. M., *Instr. Dairy Husb.;*  
*Asst. Dairy Husb.*  
 \*†George Reeder, *Lect. on Met., Climat.;*  
*Section Dir. U. S. Weather Bureau.*  
 \*H. C. Rentschler, Ph. D., (*Asst.*) *Phys.*  
 \*†L. G. Rinkle, M. S. A., (*Asst.*) *Dairy*  
*Husb.; Dairy Husb.*  
 \*Ethel Ronzone, A. M., *Instr. Home Econ.*  
 †Addie D. Root, B. S., *Ext. Instr. Home*  
*Econ.*  
 \*†E. H. Rucker, B. S. A., *Asst. Poultry*  
*Husb.*  
 \*Herman Schlundt, Ph. D., *Phys. Chem.*  
 \*H. F. Sill, Ph. D., *Instr. Chem.*



## MISSOURI—Continued.

- †S. T. Simpson, B. S. A., (*Ext. Asst.*) *An. Husb.*  
 \*†B. E. Sive, B. Ch. E., *Asst. Agr. Chem.*  
 \*M. Elizabeth Spalding, B. S., *Asst. in Home Econ.*  
 †E. R. Spence, B. S. A., *Ext. Asst. in An. Husb. and Vet. Sci.*  
 \*Louise Stanley, Ph. D., (*Assoc.*) *Home Econ.*  
 †K. C. Sullivan, B. S., *Deputy Insp. of Nurseries.*  
 †T. J. Talbert, B. S. A., (*Ext. Asst.*) *Ent.*  
 \*G. W. Tannreuther, Ph. D., *Instr. Zool.*  
 \*†W. E. Thrun, M. S., *Asst. Agr. Chem.*

- \*†E. A. Trowbridge, B. S. A., *An. Husb.*  
 \*†P. F. Trowbridge, Ph. D., *Agr. Chem.*  
 \*†E. E. Vanatta, M. S. A., *Asst. Agr. Chem.*  
 †J. G. Watson, B. S., (*Ext. Asst.*) *Dairy Husb.*  
 \*†L. A. Weaver, B. S. A., (*Asst.*) *An. Husb.; An. Husb.*  
 \*†Percy Werner, B. S. A., *Asst. Dairy Husb.*  
 \*†J. C. Whitten, Ph. D., *Hort.*  
 \*†C. C. Wiggans, A. M., *Instr. Hort.; Asst. Hort.*  
 \*†L. W. Wing, jr., *Asst. in Dairy Husb.*  
 \*H. F. Yansey, A. M., *Asst. in Chem.*  
 \*Beulah M. Zilles, A. B., *Asst. in Bot.*

## Missouri State Fruit Experiment Station, Mountain Grove.

†Station staff.

†Paul Evans, *Director.*

- †A. D. Kilham, A. B., *Field Asst., Marion ville.*  
 †D. H. Rose, A. M., *Path.*  
 †M. P. Somes, M. S., *Ent.*

- †A. M. Swartwout, *Asst. Hort.*  
 †A. J. Umholtz, *Orchard Asst.*  
 †C. M. Williams, *Field Hort., Cuba.*

## Lincoln Institute, Jefferson City.

\*College faculty.

\*B. F. Allen, A. M., LL. D., *President.*

- \*Rena H. Branham, B. S., *Dom. Art.*  
 \*Mrs. R. C. Caldwell, B. S. D., *Dom. Sci.*  
 \*Mrs. D. E. Christburg, A. B., *Nature Study.*  
 \*J. W. Damel, M. Ph., *Phys., Biol., Theoretical Agr.*  
 \*T. M. Hampton, *Farm Mgt., Market Gard.*

- \*Nora L. Hingston, B. S. D., *Dom. Art.*  
 \*J. G. Lumpkin, *Asst. Agr., Dairying, Farm Mgt.*  
 \*Mrs. E. F. Thompson, *Laundering.*  
 \*Gertrude Williams, *Libr.*  
 \*H. S. Williams, A. B., *Chem.*

## MONTANA.

## Montana State College of Agriculture and Mechanic Arts and the Agricultural Experiment Station, Bozeman.

\*College faculty. †Station staff. ‡Extension staff.

\*J. M. Hamilton, M. S., *President.*\*†F. B. Linfield, B. S. A., *Dean of Agr. Dir. of Sta.*†F. S. Cooley, B. S., *Dir. Ext. Service.*

- \*†C. N. Arnett, B. S., *An. Husb.*  
 \*†Alfred Atkinson, M. S., *Agron.*  
 \*Florence Ballinger, (*Asst.*) *Dom. Art.*  
 \*R. H. Bogue, M. S., (*Asst.*) *Agr. Chem.*  
 †Edmund Burke, B. S., *Chem.*  
 †F. J. Chase, B. S., *Farm. Mgt. Dem.*  
 \*W. M. Cobleigh, A. M., *Chem. (State Chem.).*  
 \*†R. A. Cooley, B. S., *Zool., Ent. (State Ent.).*  
 \*†E. L. Currier, B. S., *Farm Mgt.*  
 †R. R. Dodderidge, B. S., *Asst. An. Husb.*  
 †Augusta D. Evans, B. A., *Specialist, Boys' and Girls' Clubs.*  
 \*Elizabeth Forrest, B. L. S., *Libr.*  
 \*Carlotta M. Ford, A. B., *Asst. in Home Econ.*

- †L. F. Giesecker, M. S., *Asst. Agron.*  
 \*Carl Gottschalk, M. S., *Asst. in Chem.*  
 \*F. W. Ham, M. S., *Phys.*  
 \*Lilla A. Harkins, M. S., *Dom. Sci.*  
 †W. J. Hartman, D. V. M., *Live Stock Specialist.*  
 \*E. C. Hytree, M. S., *Instr. Chem.*  
 \*H. M. Jennison,<sup>1</sup> M. A., (*Asst.*) *Bot., Bact.*  
 †Katherine Jensen, M. S., *Home Econ. Specialist.*  
 †R. S. Jones, B. S., *Asst. Chem.*  
 \*G. L. Martin, B. S., *Dairying.*  
 †H. E. Morris, B. S., *Asst. Bot., Bact.*  
 \*†H. E. Murdock, C. E., M. E., *Agr. Engin.*  
 †J. B. Nelson, *Asst. Agron.*  
 †J. R. Parker, B. S., *Asst. Ent.*

<sup>1</sup> On leave.

## MONTANA—Continued.

- †R. M. Pinckney, M. A., *Asst. Chem.*  
 †E. J. Quinn, B. S., *Asst. Chem.*  
 \*E. H. Riley, D. V. M., *Instr. An. Husb.*  
 \*†W. F. Schoppe, M. S., *Poultry Husb.; Poultryman.*  
 \*H. M. Shea, M. S., *Instr. Chem.*  
 \*M. Alda Smith, B. S., *Instr. Home Econ.*  
 †G. E. Smith, B. A. S., *Asst. Chem.*  
 \*M. H. Spaulding, A. M., (*Asst.*) *Zool.*  
 \*†C. C. Starring, B. S., *Instr. Hort.; Asst. Hort.*  
 \*†D. B. Swingle, M. S., *Bot., Bact.*
- \*†Oscar Tretsven, *Instr. An. Husb.; Asst. An. Husb.*  
 \*†Howard Welch, D. V. M., *Vet. Sci.; Vet.*  
 \*†O. B. Whipple, B. S., *Hort.*  
 \*W. O. Whitcomb, M. S., (*Asst.*) *Agron.*  
 †B. W. Whitlock, B. S., *in charge Grain Lab.*  
 †M. L. Wilson, B. S., *State Leader County Agriculturists.*  
 \*†D. C. Wood, B. S., (*Asst.*) *Farm. Mgt.; Asst. in Farm Mgt.*

## NEBRASKA.

## College of Agriculture and the Agricultural Experiment Station of the University of Nebraska, Lincoln.

\*College faculty. †Station staff. ‡Extension staff.

- \*Samuel Avery, Ph. D., LL. D., *Chancellor of University.*  
 \*†E. A. Burnett,<sup>1</sup> B. S., *Dean Coll. of Agr. Dir. of Sta. Head Dept. An. Husb. (\*†)*  
 †C. W. Pugsley, B. S., *Dir. Agr. Ext. Service.*
- \*S. W. Alford, D. V. S., *Asst. in Serum Prod.*  
 †A. E. Anderson, A. B., *State Leader.*  
 \*G. H. Anderson, B. S., *Instr. Agr. Bot.*  
 \*†W. E. Anderson, B. S., *Dairy Chem.*  
 \*A. A. Baer, B. A., (*Asst.*) *Agr. Engin.*  
 \*N. A. Bengtson, A. M., (*Assoc.*) *Agr. Indus. and Soil Survey.*  
 \*E. E. Brackett, B. S., (*Asst.*) *Agr. Engin.*  
 \*H. E. Bradford, A. B., *Secon. Agr. Ed. Prin. School of Agr.*  
 \*Mary-Ellen Brown, B. S., *Instr. Home Econ.*  
 \*†Lawrence Bruner, B. S., *Ent. (State Ent.).*  
 \*†J. W. Calvin, B. S., (*Asst.*) *Agr. Chem.; Asst. Chem.*  
 \*†L. W. Chase, M. E., A. E., *Agr. Engin.*  
 \*G. E. Condra, Ph. D., *Agr. Indus. and Soil Survey.*  
 \*†J. R. Cooper, B. S., (*Asst.*) *Hort.; Asst. Hort.*  
 \*Leila F. Corbin, *Asst. in Home Econ.*  
 †James Cowan, M. E., *Supt. Valentine Substa.*  
 \*†J. S. Dales, M. Ph., *Financial Sec.*  
 \*Helen L. Davis, B. S., (*Asst.*) *Home Econ.*  
 †Emma R. Davisson, *in charge Women's Club Work.*  
 \*R. W. Dawson, B. S., *Instr. Ent.*  
 \*††F. C. Dean, A. B., *Agr. Editor.*  
 \*M. E. Dickson, B. S., (*Asst.*) *in charge Poultry Husb.*  
 \*Estella M. Ellison, *Instr. Home Econ.*  
 \*Margaret S. Fedde, *Instr. Home Econ.*  
 \*††H. C. Filley, A. M., *Farm Mgt.*  
 \*†J. H. Frandsen, M. S. A., *Dairy Husb.*  
 †P. L. Gaddis, A. B., (*Asst.*) *Agron.*
- \*†J. H. Gain, M. D. C., *An. Path.*  
 \*†H. J. Gramlich, B. S., *An. Husb.*  
 †C. A. Helm, A. M., *Asst. Expt. Agron.*  
 \*G. W. Hood, M. S., (*Assoc.*) *Hort.*  
 †E. H. Joppert, B. S., (*Asst.*) *Hort.*  
 \*†Erwin Hopt, B. S., *Instructional Agron.; Asst. Agron.*  
 \*††R. F. Howard, M. A., *Hort.*  
 \*F. E. Johnson, B. S., D. V. S., *Supt. Serum Plant.*  
 \*F. D. Keim, B. S., *Instr. Agron.*  
 \*†T. A. Kiesselbach, A. M., *Expt. Agron.*  
 \*Astred A. Kjelson, *Asst. in Home Econ.*  
 †Fritz Knorr, B. S., *Supt. Scottsbluff Substa., Mitchell.*  
 \*†C. B. Lee, A. M., *An. Husb.*  
 \*Leta B. Lynch, A. B., *Asst. Home Econ.*  
 \*†G. K. K. Link,<sup>2</sup> A. M., (*Assoc.*) *Agr. Bot.; Asst. Agr. Bot.*  
 \*Alice M. Loomis, M. A., *Home Econ.*  
 \*†G. A. Loveland, M. A., LL. B., *Met.*  
 †H. A. McComb, B. S., *Asst. Hort., North Platte Substa.*  
 \*Florence A. McCormick, Ph. D., (*Asst.*) *Agr. Bot.*  
 †J. G. McMillan, B. S., *Boys' and Girls' Pig Clubs.*  
 \*E. G. Maxwell, B. S., *Dairyman.*  
 \*T. W. Nicolet, M. L. A., (*Asst.*) *Landsc. Archt.*  
 \*Edna C. Noble, B. L., *Asst. in charge Libr.*  
 †H. L. Nye, *Foreman Dem. Farm, Culbertson.*  
 \*Edith V. Ohlsen, B. S., *Instr. Home Econ.*  
 †Emma Ort, B. S., *Instr. Home Econ.*  
 †Huldah Peterson, *in charge Boys' and Girls' Clubs.*  
 \*H. B. Pier, B. S., *Instr. An. Husb.*

<sup>1</sup>In charge of all substations.

<sup>2</sup>On leave.

## NEBRASKA—Continued.

- \*H. M. Plum, Ph. D., (*Assoc.*) *Agr. Chem.*
- †D. H. Propps, B. S., (*Asst.*) *Dairy Husb.*
- \*†J. A. Ratcliff, A. M., (*Asst.*) *Expt. Agron.*; *Asst. Expt. Agron.*
- †Mary Rokahr, A. B., *Instr. Home Econ.*
- \*L. F. Seaton, B. S. M. E., (*Asst.*) *Agr. Engin.*
- †L. T. Skinner, B. S., *Asst. in Boys' Club Work.*
- \*C. W. Smith, B. S., *Instr. Phys.*
- †W. P. Snyder, M. S., *Supt. North Platte Substa.*
- †R. R. Spafford, B. S., (*Asst.*) *Farm Mgt.*
- \*†L. B. Sturdevant, A. M., M. D., (*Assoc.*) *An. Path.*; *Asst. An. Path.*
- \*†M. H. Swenk, B. S., *Econ. Ent.*
- \*†F. W. Upton, Ph. D., *Agr. Chem.*

- \*Julia Vance, B. S., (*Asst.*) *Home Econ.*
- \*Mary S. Van Kirk, *Instr. Home Econ.*
- \*†H. E. Vasey, A. M., (*Asst.*) *Agr. Bot.*; *Asst. Agr. Bot.*
- \*Esther Warner, B. S., *Instr. Home Econ.*
- †K. F. Warner, M. S., *An. Husb.*
- \*†E. M. Wilcox, Ph. D., *Agr. Bot.*
- †H. F. Williams, B. S., (*Asst.*) *Farm Mgt.* *Farm Survey Work.*
- \*Maud M. Wilson, B. S., (*Asst.*) *Home Econ.*
- †I. D. Wood, M. S. A. E., (*Asst.*) *Agr. Engin.*
- \*†E. G. Woodward, A. M., (*Asst.*) *Dairy Husb.*; *Asst. Dairy Husb.*
- \*H. J. Young, B. S., (*Asst.*) *Instructional Agron.*

## NEVADA.

## College of Agriculture and the Agricultural Experiment Station of the University of Nevada, Reno.

\*College faculty. †Station staff. ‡Extension staff.

\*A. W. Hendrick, A. M., *President.*

\*†C. S. Knight, B. S., *Dean Coll. of Agr. Agron.*

†S. B. Doten, M. A., *Dir. of Sta. Ent.*

†C. A. Norcross, A. B., *Dir. Agr. Ext.*

- \*†Maxwell Adams, Ph. D., *Chem.*; *Consult. Chem.*
- \*Kate Bardenwerper, B. S., (*Assoc.*) *Home Econ.*
- †J. E. Church, jr., Ph. D., *Met.*
- ††Mrs. T. W. Cowgill, M. A., *Libr.*
- †Norma J. Davis, *State Leader in Home Econ. and Girls' Club Work.*
- †S. P. Fergusson, *Assoc. Met.*
- \*†C. E. Fleming, B. S., *Range Mgt.*
- \*†Peter Frandsen, A. M., *Biol.*; *Consult. Biol.*
- \*L. W. Hartman, Ph. D., *Phys.*
- \*†C. A. Jacobson, Ph. D., *Agr. Chem.*; *Chem.*
- \*††P. A. Lehenbauer, Ph. D., (*Asst.*) *Bot.*, *Hort.*; *Consult. Bot.*, *Hort.*

- ‡Stephen Lockett, V. M. D., *Asst. in An. Disease Control.*
- \*Margaret E. Mack, A. M., *Instr. Biol.*
- \*††W. B. Mack, D. V. M., *Bact.*, *Vet. Sci.* *State Leader in An. Disease Control.*
- †J. B. Menardi, jr., B. S., *Asst. Agron.*
- \*Zilla E. Mills, B. S., *Instr. Home Econ.*
- \*H. H. Mosher, A. B., *Instr. Chem.*
- †Edward Records, V. M. D., *Asst. Vet. and Bact.*
- \*†W. M. Regan, M. A., (*Asst.*) *Dairying*; *Acty. Head Dept. of Dairy Husb.*
- †V. E. Scott, B. S., *Dairy Ext. (Coop. U. S. D. A.)*
- \*††F. W. Wilson, M. S., *An. Husb.*; *Consult. An. Husb.*

## NEW HAMPSHIRE.

## New Hampshire College of Agriculture and the Mechanic Arts and the Agricultural Experiment Station, Durham.

\*College faculty. †Station staff. ‡Extension staff.

\*E. T. Fairchild, D. Pd., LL. D., *President.*

††J. C. Kendall, B. S., *Dir. of Sta. Dir. Ext. Work.*

- †J. B. Abbott, M. S., *State Leader.*
- \*A. S. Ambrose, B. S., *Asst. in Dairying.*
- \*C. H. Batchelder, B. S., *Asst. Zool.*
- †Sara L. Bates, *Home Econ.*
- \*Caroline A. Black, Ph. D., (*Asst.*) *Bot.*
- \*†O. R. Butler, Ph. D., *Bot.*
- †L. A. Carlisle, B. S., *in charge Boys' Club Work.*

- \*†C. R. Cleveland, A. B., *Asst. Ent.*
- ††B. E. Curry, A. B., *Chem.*
- †W. P. Davis, *in charge Dairy Cow Test Assoc. Work.*
- \*O. L. Eckman, B. S., *An. Husb.*
- \*†Martha F. Emerson, *Libr.*
- \*C. J. Fawcett, B. S., *Instr. An. Husb.*
- \*W. J. Fisher, Ph. D., *Phys.*

## NEW HAMPSHIRE—Continued:

- \*A. W. Gamash, B. S., *Asst. For.*  
 \*Nellie E. Goldthwaite, Ph. D., *Home Econ.*  
 \*†J. H. Gourley, B. S., *Hort.*  
 \*A. J. Grant, B. S., *Asst. Chem.*  
 \*C. F. Jackson, M. A., *Zool., Ent.*  
 \*Charles James, F. I. C., *Chem.*  
 †C. L. Long, M. S., *Orchard Dem.*  
 †James Macfarlane, *Florist.*  
 †Elizabeth E. Mehafeey, *Asst. Libr.*  
 \*†R. V. Mitchell, B. S., (*Asst.*) *An. Husb., in charge of Poultry.*  
 \*Clement Moran, A. B., *Instr. Phys.*  
 \*†W. C. O'Kane, M. A., *Econ. Ent.; Ent.*  
 \*†C. H. Otis, Ph. D., *Asst. Bot.*  
 \*G. A. Perley, M. S., (*Asst.*) *Phys. Chem.*  
 \*C. H. Pettee, C. E., LL. D., *Dean of Coll.*  
 \*†F. S. Prince, B. S., *Instr. Agron.; Asst. Agron.*  
 \*††Fred Rasmussen, B. S. A., *Dairying.*
- \*Frieda Reiner, B. S., *Asst. in Home Econ.*  
 ††E. G. Ritzman, B. S. A., *An. Husb.*  
 †Mary L. Sanborn, *in charge Girls' Club Work.*  
 \*†J. B. Scherrer, B. S., *Instr. Veg. Gard.; Veg. Gardener.*  
 †T. O. Smith, A. B., *Asst. Chem.*  
 \*†Harriet H. Stanley, *Libr.*  
 \*O. J. Stewart, M. S., *Instr. Chem.*  
 \*C. W. Stone, A. M., *Supt. of Farm.*  
 †E. M. Straight, B. S. A., *Veg. Garden Dem.*  
 \*†F. W. Taylor, B. S., *Agron. Dean of Agr.*  
 \*W. R. Wilson, B. S., *Instr. Dairying.*  
 \*†W. H. Wolff, M. S., (*Asst.*) *Pomol.; Asst. Hort.*  
 \*†K. W. Woodward, M. F., *For.*  
 \*†H. P. Young, B. S., *Asst. Agron.*

## NEW JERSEY.

**The New Jersey College for the Benefit of Agriculture and the Mechanic Arts and the Agricultural Experiment Station of Rutgers College, New Brunswick.**

\*College faculty. †Station staff. ‡Extension staff.

- \*W. H. S. Demarest, A. M., D. D., LL. D., *President.*  
 \*†J. G. Lipman, Ph. D., *Dir. of Sta. Dean of Agr. Soil Fert., Bact. (\*) Soil Chem., Bact. (†)*  
 \*†Alva Agee, M. S., *Dir. Div. of Ext. in Agr. and Home Econ. Soil Fert. (\*)*
- \*Frank App, B. S., (*Asst.*) *Agron.*  
 †V. G. Aubry, B. S., *Specialist in Poultry.*  
 †J. W. Bartlett, *Field Asst. Hort.*  
 \*†A. W. Blair, A. M., (*Assoc.*) *Agr. Chem.; Assoc. Soil Chem., Bact.*  
 \*M. A. Blake, B. S., *Hort.*  
 †W. J. Carson, B. S. A., *Dairy Husb.*  
 \*F. E. Chidester, Ph. D., (*Assoc.*) *Biol.*  
 †A. L. Clark, *Asst. State Leader of County Dem.*  
 \*†M. T. Cook, Ph. D., *Plant Path.*  
 †Fannie F. Cooper, *Asst. Home Econ.*  
 \*H. V. Cory, B. S., *Instr. Poultry Husb.*  
 †W. N. Cowgill, *Field Asst. Hort.*  
 †R. W. DeBaun, *Specialist in Market Gard.*  
 \*A. C. de Regt, M. S. (*Assoc.*) *Chem.*  
 \*A. J. Farley, B. S., *Instr. Hort.*  
 †L. G. Gillam, B. S., *Ext. Specialist in Fruit Growing.*  
 †Mathilde Groth, *Lab. Asst. in Bot.*  
 \*A. M. Hageman, M. S., *Asst. Chem.*  
 \*†B. D. Halsted, D. Sc., *Bot.*  
 †M. Anna Hauser, B. S., *Specialist in Home Econ.*  
 \*†T. J. Headlee, Ph. D., *Ent. (State Ent.)*  
 \*J. P. Helyar, M. S., *Instr. Bot.*  
 \*J. M. Hunter, B. S., *Asst. in An. Husb.*  
 \*R. F. Irvin, B. S., *Instr. Poultry Husb.*
- \*H. R. Lewis, B. S., (*Assoc.*) *Poultry Husb.*  
 \*J. V. Lewis, S. B., *Geol.*  
 †H. C. McLean, B. S., *Asst. Soil Chem., Bact.*  
 \*B. I. MacDonald, B. S., *Asst. in Chem.*  
 †Augusta E. Meske, *Asst. Ent.*  
 \*F. C. Minkler, B. S., (*Assoc.*) *An. Husb. and Dir. of Short Courses in Agr.*  
 \*†Julius Nelson, Ph. D., *Biol.*  
 \*H. B. North, D. Sc., (*Assoc.*) *Chem.*  
 \*G. A. Osborn, B. S., *Libr.*  
 †E. J. Owen, M. S., *Asst. Bot.*  
 \*F. R. Pratt, M. S., (*Asst.*) *Phys.*  
 †C. H. Richardson, M. S., *Asst. Ent.*  
 \*J. A. Ridgway, *Instr. Farm Mech.*  
 \*†L. S. Riford, M. A., *Asst. in Dairy Husb.*  
 \*L. G. Schermerhorn, B. S., *Instr. Veg. Gard.*  
 †F. P. Schlatter, B. S., *Research Asst. in Cranberry Invest.*  
 J. W. Shive, Ph. D., *Plant Physiol.*  
 \*R. O. Smith, Ph. D., (*Assoc.*) *Chem.*  
 \*†W. R. Stone, *Orchard Foreman.*  
 \*F. C. Van Dyck, Ph. D., D. Sc., *Phys.*  
 \*†A. G. Waller, B. S., *Asst. in Agron.*  
 †L. K. Wilkins, B. S., *Research Asst. in Soils.*  
 \*†C. R. Woodward, B. S., *Editor and Libr.*  
 \*R. G. Wright, Ph. D., *Chem.*



## NEW JERSEY—Continued.

## New Jersey State Agricultural Experiment Station, New Brunswick.

†Station staff. ‡Extension staff.

††J. G. Lipman, Ph. D., *Dir. of Sta.*‡Alva Agee, M. S., *Dir. Div. of Ext. in Agr. and Home Econ.*†V. G. Aubry, B. S., *Specialist in Poultry.*†M. A. Blake, B. S., *Hort.*†H. H. Brehme, *Field Asst.*†H. E. Carney, B. S., *Asst. Seed Analyst.*†C. S. Cathcart, M. S., *Chem.*†A. L. Clark, *Dir. Farmers' Insts. Asst. State Leader County Dem.*†C. H. Connors, B. S., *Asst. Expt. Hort.*†W. A. Cray, *Fert. and Feed Sampler.*†R. E. Curtis, B. S., *Research Asst. in Soil Bact.*†T. J. Headlee, Ph. D., *Ent. (State Ent.).*†J. P. Helyar, M. S., *Seed Analyst.*†J. M. Hunter, B. S., *Asst. An. Husb.*†D. M. Jobbins, *Greenhouse Asst.*†W. S. Krout, M. A., *Asst. in Plant Path.*†H. R. Lewis, B. S., *Poultry Husb.*†W. H. Martin, B. S., *Research Asst. in Plant Path.*†F. C. Minkler, B. S. A., *An. Husb.*†W. S. Porte, B. S., *Research Asst. in Plant Brdy.*†H. P. Rood, *Sampler and Asst.*†L. A. Ruzicka, *Greenhouse Asst.*†O. C. Schultz, B. S., *Research Asst. in Plant Physiol.*†Morris Siegel, *Poultry Asst.*†W. C. Thompson, B. S., *Research Asst. in Poultry.*†C. S. Van Nuis, *Assoc. Agron.*†S. A. Waksman, B. S., *Research Asst. in Soil Bact.*†A. C. Wark, *Lab. Asst. in Chem.*†E. H. Wene, *Asst. in Poultry Husb.*†L. K. Wilkins, B. S., *Field and Lab. Asst.*†J. J. Williams, *Microscopist.*†R. L. Willis, B. S., *Asst. Chem.*††C. R. Woodward, B. S., *Libr. Editor of News Letter.*

## NEW MEXICO.

## New Mexico College of Agriculture and Mechanic Arts and the Agricultural Experiment Station, State College (freight and express address, Mesilla Park).

\*College faculty. †Station staff. ‡Extension staff.

\*G. E. Ladd, Ph. D., *President. Geol. (\*)*\*††Fabian Garcia, M. S. A., *Dir. of Sta. Hort. (\*††)*‡A. C. Cooley, B. S. A., *Dir. of Ext. Work. State Leader.*\*†J. T. Barlow, B. S., *Asst. Agron.*††F. L. Bixby, B. S. C. E., *Irrig. Engin.*†D. W. Bloodgood, B. S. M. E., *Asst. in Irrig.*†F. W. Christensen, M. S., *Nutr. Chem.*†W. T. Conway, B. S., *Boys' and Girls' Club Work.*\*†E. H. Divilbiss, B. S. A., *Asst. Hort.*\*†A. B. Fite, B. S., *Asst. Hort.*\*††Luther Foster, M. S. A., *An. Husb.*\*†Floy E. French, *Libr.*\*†J. G. Hamilton, B. S., *Asst. Agron.*\*††L. A. Higley, Ph. D., *Chem.*\*C. H. Kunsman, M. S., *Phys.*†R. W. Latta, B. S., *Dairy Work.*\*Raymond Matthew, B. S. I. E., *Asst. Irrig. Engin.*\*†E. J. Maynard, B. S., *Instr. An. Husb.; Asst. An. Husb.*\*†J. R. Meeks, B. S. A., *Asst. in Dairying; Dairyman.*\*††D. E. Merrill, M. S., *Biol.*\*Pearl C. Miller, B. S., *Household Econ.*\*†José Quintero, B. S. M. E., *Asst. Chem.*†Dora E. Ross, M. S., *Home Econ.*\*†R. L. Stewart, M. S., *Agron.*\*Helen I. Thissell, *Instr. Household Econ.*

\*†R. B. Thompson, B. S., ————

\*†F. C. Werkenthin, M. A., *Bot.*\*††C. P. Wilson, M. S., *Editor Agr. Pubs. Sec. Ext. Work.*

## NEW YORK.

## New York State College of Agriculture and the Agricultural Experiment Station at Cornell University, Ithaca.

\*College faculty. †Station staff. ‡Extension staff.

\*J. G. Schurman, D. Sc., LL. D., *President of University.*\*††B. T. Galloway, B. A. S., LL. D., *Dean Coll. of Agr. Dir. of Sta. Dir. Div. of Ext. Teaching.*\*††Bristow Adams, B. A., *in charge Information Service, Editor.*\*C. P. Alexander, B. S., *Instr. Nat. Hist.*\*†A. A. Allen, Ph. D., (*Asst.*) *Ornith.*\*E. G. Anderson, B. S., *Asst. Plant Brdy.*†W. E. Ayres, *Ext. Instr. Dairy Indus.*

## NEW YORK—Continued.

- †H. E. Babcock, Ph. B., *Asst. Dir. Farm Bureau.*  
 \*E. E. Barker, Ph. D., (*Asst.*) *Plant Brdg.*  
 †J. H. Barron, B. S. A., (*Ext. Asst.*) *Farm Crops.*  
 \*†M. F. Barrus, Ph. D., *Ext. Plant Path.*; *Plant Path. Invest.*  
 \*H. D. Bauder, B. S., *Asst. Dairy Indus.*  
 \*†A. C. Beal, Ph. D., *Invest. and Expt. Flor.*  
 \*A. B. Beaumont, B. S., *Asst. Soil Tech.*  
 \*A. R. Bechtel, A. M., *Instr. Bot.*  
 \*†E. W. Benjamin, Ph. D., (*Asst.*) *Poultry Husb.*; *Poultry Husb.*  
 \*J. P. Benson, *Asst. Bot.*  
 \*†John Bentley, jr., M. F., (*Asst.*) *For.*; *For.*  
 \*A. M. Besemer, B. S., *Instr. Dairy Indus.*  
 \*Cornelius Betten, Ph. D., *Sec., Registrar.*  
 †Miriam Birdseye, A. B., (*Asst.*) *Home Econ.*  
 \*S. C. Bishop, *Asst. Ent.*  
 \*†J. A. Bizzell, Ph. D., *Soil Tech.*  
 \*Beulah Blackmore, *Instr. Home Econ.*  
 †F. M. Blodgett, Ph. D., (*Asst.*) *Plant Path.*  
 \*†J. C. Bradley, Ph. D., (*Asst.*) *Systematic Ent.*  
 \*J. M. Brannon, M. A., *Instr. Bot.*  
 \*Harry Braun, B. S., *Asst. Plant Path.*  
 \*J. H. Bromly, B. S., *Asst. Soil Tech.*  
 \*L. G. Brown, *Asst. Ent.*  
 \*H. O. Buckman, Ph. D., (*Asst.*) *Soil Tech.*  
 \*†M. C. Burritt, M. S. A., *Ext. Teaching and Dir. Farm Bureaus.*  
 \*Helen Canon, B. A., *Asst. Home Econ.*  
 \*†G. W. Cavanaugh, B. S., *Agr. Chem.*  
 \*†W. H. Chandler, Ph. D., *Pomol. (Research).*  
 \*W. L. Chandler, M. S., *Instr. Ent. (Parasitol.).*  
 \*Charles Chupp, A. B., *Instr. Plant Path.*  
 \*P. W. Claassen, A. M., *Asst. Ent.*  
 \*Mrs. Anna B. Comstock, B. S., (*Asst.*) *Nature Study.*  
 \*H. J. Conlin, A. B., *Asst. Agr. Chem.*  
 \*W. T. Craig, *Asst. Plant Brdg. (Coop. U. S. D. A.).*  
 †C. R. Crosby, A. B., *Ext. Ent. Ent. Invest.*  
 †D. J. Crosby, M. S., *Ext. Teaching.*  
 \*L. J. Cross, Ph. D., *Agr. Chem.*  
 \*O. F. Curtis, M. S., *Instr. Bot.*  
 \*R. W. Curtis, M. S. A., (*Asst.*) *Landsc. Art.*  
 \*C. O. Dalrymple, B. S., *Asst. Plant Path.*  
 \*A. B. Dann, B. S., *Instr. Poultry Husb.*  
 \*E. G. Davis, B. S., (*Asst.*) *Landsc. Art.*  
 \*E. P. Deatrick, A. B., *Asst. Soil Tech.*  
 \*B. T. Dickson, B. A., *Asst. Plant Path.*  
 \*O. W. Dynes, M. S., *Instr. Farm Crops.*  
 \*A. J. Eames, Ph. D., (*Asst.*) *Bot.*  
 \*H. B. Ellenberger, B. S. A., *Instr. Dairy Indus.*  
 \*G. C. Embody, Ph. D., (*Asst.*) *Aquiculture.*  
 \*†R. A. Emerson, D. Sc., *Plant Brdg.*  
 \*†G. A. Everett, A. B., *Ext. Teaching.*  
 †E. O. Fippin, B. S. A., *Soil Tech.*  
 \*†W. W. Fisk, M. S., (*Asst.*) *Dairy Indus.*; *Dairy Indus.*  
 \*H. M. Fitzpatrick, Ph. D., (*Asst.*) *Plant Path.*  
 \*W. F. Flynn, B. Ch., *Asst. Agr. Chem.*  
 \*W. T. M. Forbes, Ph. D., *Instr. Ent.*  
 \*D. S. Fox, B. S., *Instr. Farm Mgt.*  
 \*A. C. Fraser, B. S., *Instr. Plant Brdg.*  
 \*S. W. Frost, B. S., *Asst. Ent.*  
 †Clara L. Garrett, *Illustrator.*  
 \*Ada E. Georgia, *Asst. Nat. Hist.*  
 \*A. W. Gibson, *Asst. Farm Pract.*  
 \*†A. W. Gilbert, Ph. D., *Plant Brdg.*  
 †Royal Gilkey, B. S. A., (*Asst.*) *Ext. Teaching. Supervisor Reading Courses.*  
 \*†C. T. Gregory, Ph. D., (*Asst.*) *Plant Path.*; *Plant Path.*  
 \*Lucie Grier, B. S., *Asst. Ent.*  
 †F. L. Griffin, M. S., *in charge Club Work.*  
 \*Ludlow Griscom, A. M., *Asst. Ornith.*  
 †Lela G. Gross, *Asst. Editor.*  
 \*C. H. Guise, M. F., *Instr. For.*  
 \*†E. S. Guthrie, Ph. D., *Dairy Indus.*  
 †C. H. Hadley, jr., B. S., *Ent. Invest.*  
 \*E. S. Ham, B. S., *Instr. An. Husb.*  
 \*M. B. Haman, B. S., *Asst. For.*  
 \*E. V. Hardenburg, B. S., *Instr. Farm Crops.*  
 \*†M. W. Harper, M. S., *An. Husb.*  
 \*L. E. Harvey, B. S., *Asst. Farm Mgt.*  
 \*R. J. Haskell, B. S., *Instr. Plant Path.*  
 \*L. A. Hausman, B. A., *Instr. Met.*  
 \*L. S. Hawkins, B. A., *Lect. Rural Ed.*  
 \*I. M. Hawley, A. B., *Asst. Econ. Ent.*  
 \*Blanche E. Hazard, M. A., (*Asst.*) *Home Econ.*  
 \*L. E. Hazen, B. S., *Instr. Farm Mech.*  
 \*A. J. Heinicke, M. A., *Instr. Pomol.*  
 \*Mary F. Henry, A. B., *Instr. Home Econ.*  
 \*†G. W. Herrick, B. S. A., *Econ. Ent.*  
 \*L. R. Hesler, Ph. D., (*Asst.*) *Plant Path.*  
 \*W. N. Hess, A. B., *Asst. Insect Morphology.*  
 \*Mary E. Hill, B. S., *Asst. Biol.*  
 \*E. E. Honey, *Asst. Plant Path.*  
 †H. A. Hopper, M. S., *Ext. Teaching An. Husb.*  
 \*†R. S. Hosmer, M. F., *For.*  
 \*A. C. Hottes, M. S., *Instr. Flor.*  
 \*Ruby B. Hughes, A. M., *Asst. Ent.*  
 \*Anna E. Hunn, B. S., *Instr. Home Econ., Mgr. Cafeteria.*  
 \*C. E. Hunn, *Asst. Plant Propagation.*  
 †L. M. Hurd, *Ext. Instr. Poultry Husb.*  
 \*H. C. Jackson, B. S., *Asst. Dairy Indus.*  
 \*†I. C. Jagger, M. S., (*Asst.*) *Plant Path.*; *Plant Path. (Rochester).*  
 \*D. S. Jennings, B. S., *Asst. Soil Tech.*  
 \*O. A. Johannsen, Ph. D., *Biol.*

## NEW YORK—Continued.

- \*A. S. Kenerson, B. S., *Instr. Veg. Gard.*
- \*C. H. Kennedy, M. A., *Asst. Ent.*
- \*O. B. Kent, B. S., *Instr. Poultry Husb.*
- \*Cornelia F. Kephart, M. S., *Instr. Ent.*
- \*A. C. King, B. S. A., *Farm Pract.*
- \*R. King, B. S., (*Asst.*) *Bee Culture.*
- \*E. L. Kirkpatrick, B. S., *Instr. Veg. Gard.*
- †H. B. Knapp, M. S., (*Ext. Asst.*) *Pomol.*
- \*Helen Knowlton, A. B., *Instr. Home Econ.*
- \*†Lewis Knudson, Ph. D., (*Asst.*) *Bot.; Plant Physiol.*
- †W. G. Krum, *Ext. Asst. Poultry Husb.*
- \*R. J. LaFollette, B. A., *Asst. Biol.*
- \*A. J. Lamoureux, *Reference Libr.*
- \*G. N. Lauman, B. S. A., *Rural Econ.*
- †E. W. Leland, B. S. A., *Soil Tech.*
- †M. D. Leonard, B. S., *Asst. Ent.*
- \*†K. C. Livermore, Ph. D., *Farm Mgt.*
- \*J. T. Lloyd, A. B., *Instr. Limnology.*
- \*†H. H. Love, Ph. D., *Plant Brdg.*
- \*David Lumsden, (*Asst.*) *Flor.*
- \*†T. L. Lyon, Ph. D., *Soil Tech.*
- \*J. C. McCurdy, B. S. C. E., *Instr. Farm Engin.*
- \*T. J. McInerney, M. S. A., *Instr. Dairy Indus.*
- \*L. H. MacDaniels, A. B., *Instr. Bot.*
- \*A. R. Mann,<sup>1</sup> B. S. A., *Rural Social Organization.*
- \*L. M. Massey, A. B., *Instr. Plant Path.*
- †Robert Matheson, Ph. D., (*Asst.*) *Econ. Ent.; Ent.*
- †L. A. Maynard, A. B., (*Expt.*) *An. Husb.*
- \*DeVoe Meade, B. S., *Instr. An. Husb.*
- \*F. P. Metcalf, A. B., *Asst. Bot.*
- \*Lua A. Minns, B. S., *Instr. Flor.*
- †E. G. Misner, B. S., *Instr. Farm Mgt.*
- \*†E. G. Montgomery, M. A., *Farm Crops.*
- \*E. D. Montillon, B. Arch., *Instr. Landsc. Art.*
- \*W. E. Mordoff, M. E., *Instr. Farm Mech.*
- †R. S. Moseley, *Ext. Instr. Poultry Husb.*
- \*L. H. Moulton, *Supt. Farms.*
- \*†C. H. Myers, Ph. D., *Plant Brdg.*
- \*W. I. Myers, B. S., *Asst. Farm Mgt.*
- \*†J. G. Needham, Ph. D., *Limnology, Biol., Nature Study.*
- †Claribel Nye, B. S., *Asst. Home Econ.*
- \*E. L. Overholser, M. A., *Instr. Pomol.*
- \*W. M. Peacock, B. S., *Asst. Farm Crops.*
- †G. W. Peck, B. S., *Asst. Pomol.*
- \*H. D. Phillips, B. S., *Instr. Rural Econ.*
- \*†H. M. Pickerill, B. S., *Instr. and Invest. Dairy Indus.; Dairy Indus.*
- \*W. H. Rankin, Ph. D., (*Asst.*) *Plant Path.*
- \*A. B. Recknagel, M. F., M. S., *For.*
- \*†Donald Reddick, Ph. D., *Plant Path.*
- \*†F. E. Rice, Ph. D., *Instr. Agr. Chem.; Agr. Chem.*
- \*†J. E. Rice,<sup>1</sup> B. S. A., *Poultry Husb.*
- \*†H. W. Riley, M. E., *Farm Mech., Rural Engin.*
- \*†W. A. Riley, Ph. D., *Insect Morphology, Parasitol., Ent.*
- \*B. B. Robb, M. S. A., (*Asst.*) *Rural Engin.*
- \*W. J. Robbins, A. B., *Instr. Bot.*
- \*†Montgomery Robinson, B. S., *Instr. Ext. Teaching.*
- \*Flora Rose, M. A., *Home Econ.*
- \*†H. E. Ross, M. S. A., *Dairy Indus.*
- \*†E. S. Savage, Ph. D., *An. Husb.*
- \*K. P. Schmidt, *Asst. Ent.*
- \*H. W. Schneck, B. S., *Instr. Veg. Gard.*
- \*H. E. Schraedick, *Asst. Ent.*
- \*J. R. Schramm, Ph. D., (*Asst.*) *Bot.*
- \*†G. P. Scoville, B. S., (*Asst.*) *Farm Mgt., Farm Mgt. Dcm.*
- \*R. I. Scoville, B. S., *Asst. Dairy Indus.*
- \*K. J. Seulke, M. S., *Instr. An. Husb.*
- \*H. A. Severy, A. M., *Asst. Bot.*
- \*†B. W. Shaper, B. S., *Instr. Ext. Teaching.*
- \*I. W. Sharp, Ph. D., (*Asst.*) *Bot.*
- †C. D. Smith, M. S., *Instr. Ext. Teaching.*
- \*Janet S. Smith, B. A., *Asst. Home Econ.*
- \*R. C. Smith, M. A., *Asst. Biol.*
- \*S. N. Spring, M. F., *For.*
- \*†V. B. Stewart, Ph. D., (*Asst.*) *Plant Path.; Plant Path.*
- \*†W. A. Stocking, jr.,<sup>1</sup> M. S. A., *Dairy Indus.*
- \*†J. L. Stone, B. Agr., *Farm Pract.*
- \*J. L. Strahan, M. S., *Instr. Farm Mech.*
- \*G. C. Supplee, M. S. A., *Instr. Dairy Indus.*
- \*†G. W. Tailby, jr., B. S. A., *An. Husb.; Supt. Live Stock.*
- \*C. L. Thayer, B. S., *Instr. Flor.*
- \*C. C. Thomas, M. A., *Instr. Bot.*
- \*†A. L. Thompson, Ph. D., (*Asst.*) *Farm Mgt.; Farm Mgt.*
- \*†Bertha E. Titsworth, B. S., *Instr. Home Econ.*
- \*H. C. Troy, B. S. A., *Dairy Indus.*
- \*†C. H. Tuck, A. B., *Ext. Teaching.*
- \*E. M. Tuttle, A. B., (*Asst.*) *Rural Ed.*
- †Ruth Van Deman, A. B., *Asst. Editor.*
- \*Martha Van Rensselaer, A. B., *Home Econ.*
- \*Frances Vinton, A. B., *Instr. Home Econ.*
- \*E. C. Volz, B. S., *Instr. Flor.*
- \*Annette J. Warner, (*Asst.*) *Home Econ.*
- \*†G. F. Warren, Ph. D., *Farm Mgt.*
- †W. W. Warsaw, B. S. A. E., *Ext. Instr. Soil Tech.*
- †J. L. Welmer, A. B., *Ext. Instr. Plant Path.*
- \*†R. H. Wheeler, B. S., (*Asst.*) *Ext. Teaching.*
- †W. R. Wheelock, B. S., (*Ext. Asst.*) *An. Husb.*
- \*†H. H. Whetzel, M. A., *Plant Path.*

<sup>1</sup> On leave.

## NEW YORK—Continued.

- \*†E. A. White, B. S., *Flor.*  
 \*W. B. White, A. B., *Asst. Dairy Indus.*  
 \*‡C. W. Whitney, B. S., *Instr. Ext. Teaching.*  
 \*†K. M. Wiegand, Ph. D., *Bot.*  
 \*R. G. Wiggans, M. S., *Instr. Farm Crops.*  
 ‡A. E. Wilkinson, B. S., *Ext. Instr. Veg. Gard.*  
 \*B. D. Wilson, M. S., *Asst. Soil Tech.*  
 \*J. K. Wilson, Ph. D., (*Asst.*) *Soil Tech.*

- \*†W. M. Wilson, M. D., *Met.*  
 \*†H. H. Wing, M. S., *An. Husb.*  
 \*†Paul Work, B. S., *Instr. Veg. Gard.; Veg. Gard.*  
 \*G. A. Works, M. S., *Rural Ed.*  
 \*Mrs. Helen B. Young, B. Arch., (*Asst.*) *Home Econ.*  
 \*L. A. Zimm, B. S., *Asst. For.*  
 \*E. R. Zimmer, *Instr. An. Husb.*

## New York State Agricultural Experiment Station, Geneva.

†Station staff.

†W. H. Jordan, D. Sc., LL. D., *Director.*

- †R. J. Anderson, B. S., *Assoc. Chem.*  
 †R. D. Anthony, M. S., *Assoc. Hort.*  
 †J. F. Barker, M. S. A., *Soil Invest.*  
 †R. S. Breed, Ph. D., *Bact.*  
 †J. D. Brew, B. S., *Asst. Bact.*  
 †G. W. Churchill, *Agr., Supt. Labor.*  
 †A. W. Clark, B. S., *Assoc. Chem.*  
 †R. C. Collison, M. S., *Assoc. Chem. (Soils, Hort.).*  
 †H. J. Conn, Ph. D., *Assoc. Bact.*  
 †A. J. Flume, B. S., *Asst. Chem.*  
 †B. B. Fulton,<sup>1</sup> B. A., *Asst. Ent.*  
 †F. E. Gladwin, M. A., *Special Agt. (Chautauqua Grape Work, Fredonia).*  
 †Hugh Glasgow, Ph. D., *Assoc. Ent.*  
 †W. O. Gloyer, M. A., *Assoc. Bot.*  
 †F. H. Hall, B. S., *Editor, Libr., Vice Dir.*  
 †F. Z. Hartzell, M. S., *Assoc. Ent. (Chautauqua Grape Work, Fredonia).*  
 †U. P. Hedrick, D. Sc., *Hort.*  
 †H. E. Hodgkiss, B. S., *Asst. Ent.*

- †G. H. Howe, B. S., *Asst. Hort.*  
 †R. F. Keeler, B. A., *Asst. Chem.*  
 †F. H. Lathrop, M. S., *Asst. Ent.*  
 †E. J. Lewis, B. Ch. E., *Asst. Chem. (Soils).*  
 †Otto McCreary, B. S., *Asst. Chem.*  
 †A. J. Mix, A. B., *Asst. Bot.*  
 †M. T. Munn,<sup>1</sup> B. S., *Asst. Bot.*  
 †P. J. Parrott, A. M., *Ent.*  
 †E. P. Reed, B. S., *Asst. Agron.*  
 †G. L. A. Ruehle, M. S., *Asst. Bact.*  
 †F. A. Sirrine, M. S., *Special Agt. (Riverhead).*  
 †G. A. Smith, *Dairy Expert.*  
 †F. C. Stewart, M. S., *Bot.*  
 †M. P. Sweeney, M. A., *Asst. Chem.*  
 †O. M. Taylor, *Hort. Foreman.*  
 †C. B. Tubergen, B. S., *Asst. Hort.*  
 †L. L. Van Slyke, Ph. D., *Chem.*  
 †W. F. Walsh, B. S., *Asst. Chem.*  
 †J. W. Wellington, B. S., *Asst. Hort.*  
 †W. P. Wheeler, *An. Indus.*

## NORTH CAROLINA.

## North Carolina College of Agriculture and Mechanic Arts, West Raleigh, and the Agricultural Experiment Station, Raleigh and West Raleigh.

\*College faculty. †Station staff. ‡Extension staff.

\*D. H. Hill, A. M., LL. D., *President.*†‡B. W. Kilgore, M. S., *Dir. of Sta. Dir. Ext. Service.*

- †F. R. Baker, *Asst. Drain. Engin.*  
 †E. C. Blair, B. S., *Asst. Agron.*  
 \*†A. F. Bowen, *Bursar.*  
 †L. L. Brinkley, *Soil Survey.*  
 \*†T. E. Browne, B. A., *Agr. Ext. Boys' Corn Clubs.*  
 \*†W. R. Camp, A. B., *Agr. Econ.; Marketing.*  
 †F. E. Carruth, A. B., *Asst. Chem.*  
 †S. C. Clapp, *Asst. Ent.*  
 †C. E. Clark, B. S., *Asst. Dir., Edgecombe Branch Sta., Rocky Mount.*  
 †R. W. Collett, *Asst. Dir., Branch Stas.*  
 †‡Stanley Combs, *Asst. in Dairy Farming.*

- \*E. H. Cooper, B. S., *Instr. Bot.*  
 †H. L. Cox, B. S., *Asst. Chem.*  
 †R. O. Cromwell, *Asst. in Plant Diseases.*  
 †‡R. S. Curtis, B. S., *Assoc. An. Indus.*  
 †L. R. Detjen, M. S., *Asst. Hort.*  
 †E. S. Dewar, B. S., *Asst. Chem.*  
 \*J. T. Dobbins, Ph. D., *Instr. Org. Chem.*  
 \*H. D. Drain, B. S., (*Asst.*) *An. Husb.*  
 †W. H. Eaton, B. S., *Dairy Expt.*  
 \*E. L. Frederick, Ph. D., *Instr. Chem.*  
 \*†‡D. T. Gray, M. S., *An. Indus.*  
 \*J. T. Handley, B. S., *D. V. M., Instr. Path., Physiol.*  
 †E. B. Hart, *Asst. Chem.*

<sup>1</sup> On leave.



## NORTH CAROLINA—Continued.

- \*C. J. Hayden, B. S., *Instr. Hort.*  
†W. G. Haywood, B. Litt., *Fert. Chem.*  
†W. E. Hearn, B. S., *Soils (Coop. U. S. D. A.)*  
\*C. M. Heck, M. A., (*Assoc.*) *Phys.*  
†R. G. Hill, *Asst. Hort.*  
\*E. A. Hodson, M. S., *Instr. Agron.*  
†C. R. Hudson, *State Agent, Farm Dem.*  
†W. N. Hutt, B. S. A., *Hort. (State Hort.)*  
†J. Q. Jackson, A. B., *Asst. Chcm.*  
†J. H. Jeffries, *Asst. Dir., Pender Branch Sta., Willard.*  
†F. H. Jeter, *Agr. Editor.*  
†J. M. Johnson, *Farm Mgt. (Coop. U. S. D. A.)*  
\*H. L. Joslyn, B. S., *Instr. Soils.*  
\*†B. F. Kaupp, M. S., D. V. S., *Poultry Sci.; Poultry Invest. and Path.*  
\*L. F. Koonce, B. Agr., D. V. S., *Instr. Vet. Sci.*  
\*S. G. Lehman, B. S., *Instr. Bot.*  
†H. M. Lynde, *Drainage Engin. (Coop. U. S. D. A.)*  
†D. M. McCarty, B. S., *Asst. Chem. (An. Indus.)*  
†Mrs. Charles McKimmon, *Girls' Clubs.*  
\*†D. W. Martin, B. S., *Instr. Phys.*  
†E. H. Mathewson, *Tobacco Expert (Coop. U. S. D. A.)*  
†C. D. Matthews, B. S., *Expt. Hort.*  
†F. T. Meacham, *Asst. Dir., Iredell Branch Sta., Statesville.*  
\*†Z. P. Metcalf, B. A., *Zool., Ent.*  
\*C. F. Miller, Ph. D., *Instr. Chem.*  
†E. G. Moss, *Asst. Dir., Granville Branch Sta., Oxford (Coop. U. S. D. A.)*  
\*J. R. Mullen, B. S., *Instr. Chem.*  
\*C. L. Newman, M. S., *Agr.*  
†A. G. Oliver, *Poultry Clubs (Coop. U. S. D. A.)*  
†F. D. Owen, *Hog Cholera Work (Coop. U. S. D. A.)*  
†W. F. Pate, M. S., *Agron. (Soils).*  
†S. O. Perkins, B. S., *Asst. Dir., Buncombe and Transylvania Branch Stas., Swannanoa.*  
†J. M. Pickel, Ph. D., *Feed Chem.*  
\*†J. P. Pillsbury, B. S., *Hort.*  
†J. K. Plummer, Ph. D., *Soil Chem.*  
\*V. C. Pritchett, M. S., (*Asst.*) *Phys.*  
\*†A. J. Reed, *Dairy Farming (Coop. U. S. D. A.)*  
\*†G. A. Roberts, B. S., D. V. S., *Vet. Sci., Physiol.; Vet.*  
†A. K. Robertson, B. S., *Asst. Boys' Corn Clubs.*  
†A. R. Russell, *Asst. Field Expts.*  
†Franklin Sherman, jr., M. S., *Ent.*  
\*†M. E. Sherwin, M. S., *Soils.*  
†E. E. Stanford, B. S., *Asst. in Bact.*  
†Boleslaus Szymoniak, B. S., *Fruit and Truck Crop Dem.*  
††C. B. Williams, M. S., *Agron., Vice Dir. of Sta.*  
\*L. F. Williams, Ph. D., (*Assoc.*) *Chem.*  
\*Mrs. Charlotte M. Williamson, *Libr.*  
†F. C. Wiggins, B. S., *Asst. Chem.*  
†R. Y. Winters, Ph. D., *Agron. (Crops).*  
\*†W. A. Withers, A. M., *Chem.*  
\*†F. A. Wolf, Ph. D., *Bot., Plant Path.; Plant Path.*  
†J. D. Wray, B. S., *Negro Boys' Clubs.*

## The Negro Agricultural and Technical College, Greensboro.

\*College faculty. †Extension staff.

\*J. B. Dudley, A. M., LL. D., *President.*

- †N. A. Bailey, B. Agr., *Ext. Work, Farm Dem.*  
\*B. W. Barnes, B. Agr., *Instr. Dairying, An. Husb.*  
\*J. H. Bluford, A. M., *Dir. Dept. of Agr. and Chem., Instr. Agr. Chem.*  
\*A. L. Mebane, M. Agr., *Instr. Agron., Farm Supt.*  
\*C. B. Reid, B. Agr., *Instr. An. Husb.*  
\*S. M. Robinson, B. S., *Instr. Poultry Husb.*  
\*Barton White, *Instr. Hort., Landsc. Gard., Florist.*

## NORTH DAKOTA.

North Dakota Agricultural College and the Agricultural Experiment Station, Agricultural College (freight and express address, Fargo).

\*College faculty. †Station staff. ‡Extension staff.

\*J. H. Worst, LL. D., *President.*††T. P. Cooper, B. S. A., *Dir. of Sta. Dir. Ext. Work.*

- \*M. F. Barnes, D. V. M., (*Asst.*) *Vet. Sci.*  
\*†W. B. Bell, Ph. D., *Zool., Physiol.; Ent.*  
\*†H. L. Bolley, M. S., *Bot., Plant Path.*  
\*O. O. Churchill, B. S., *Agron.*  
\*†Ralph Darner, A. M., *Indus. Chem.; Chem. (Oils and Varnishes).*  
\*M. L. Dolt, Ph. D., *Org. and Anal. Chem.*  
†R. C. Doneghue, M. S. A., *Soil Invest.*

## NORTH DAKOTA—Continued.

- †C. J. T. Doryland, M. S., *Soil Bact.*  
 †R. C. Dynes, B. S., *Cost Accountant.*  
 \*†Nevada S. Evans, M. A., *Instr. Bot.; Seed Analyst.*  
 †‡D. W. Frear, B. S. A., *Executive Asst.*  
 †Carl Gaumnitz, B. S., *Farm Supt.*  
 †C. T. Guthrie, Ph. C., *Asst. Chem. (Drugs).*  
 \*Geraldine Hadley, B. A., *Instr. Home Econ.*  
 †Robert Hulbert, B. S., *Asst. Chem. (Microscopy).*  
 †J. W. Ince, M. A., *Asst. Chem. (Soils).*  
 \*E. S. Keene, M. E., *Phys.*  
 \*J. R. Keithley, M. S., *Dairying.*  
 \*†E. F. Ladd, B. S., LL. D., *Chem. (State Chem.).*  
 ‡May C. McDonald, M. A., *Home Econ.*  
 \*Mrs. Ethel McVeety, *Libr.*  
 †W. H. Mercer, B. S., *Asst. Bot. (Plant Brdg.).*  
 †D. G. Milbrath, A. B., *Asst. Bot. (Mycol., Histol.).*  
 \*G. E. Miller, M. A. (*Asst.*) *Biol.*  
 \*C. I. Nelson, B. A., (*Asst.*) *Bact.*  
 ‡Julia O. Newton, B. S., *Asst. in Ext. Div.*  
 \*Kate S. North, B. S., *Instr. Dom. Sci.*  
 †A. J. Ogaard, B. S., *Supt. Substa., Hettinger.*  
 †Stephen O'Toole, D. V. M., *Asst. Vet.*  
 ‡W. C. Palmer, M. S., *Agr. Editor.*  
 †W. H. Peters, B. S., *An. Husb.*  
 †W. R. Porter, M. S., *Supt. Dem. Farms.*  
 †R. E. Remington, B. A., *Asst. Food Chem.*  
 \*E. S. Reynolds, Ph. D., (*Assoc.*) *Bot.*  
 †C. H. Ruzicka, B. S., *Supt. Substa., Wiliston.*
- †Thomas Sanderson, *Miller.*  
 ‡Frank Sanford, *Supt. of Farmers' Insts.*  
 \*†A. F. Schalk, D. V. M., (*Asst.*) *Vet. Sci.; Asst. Vet.*  
 †Mrs. Adele Shepperd, *Asst. Chem. (Water).*  
 †J. H. Shepperd, M. S. A., *Agr. Vice Dir. and in charge Substas.*  
 †O. A. Stevens, B. S., *Seed Anal.*  
 †E. D. Stewart, B. S., *Supt. Substa., Langdon.*  
 †T. E. Stoa, B. S., *Asst. Agron. (Coop. U. S. D. A.).*  
 †W. L. Stockham, M. S., *Asst. Chem. (Oils).*  
 \*Minna A. Stoner, B. S., *Home Econ.*  
 ‡Helen Sullivan, B. A., *Asst. Boys' and Girls' Club Work.*  
 \*Bessie E. Taylor, B. S., *Instr. Dom. Art.*  
 †Levi Thomas, M. S., *Asst. Chem. (Baking).*  
 \*Melvin Thomas, B. S., (*Asst.*) *Agron.*  
 \*E. J. Thompson, B. S., *An. Husb.*  
 †O. A. Thompson, B. S., *Supt. Substa., Edgeley.*  
 \*†Leunis Van Es, M. D., V. S., *Vet. Sci.; Vet.*  
 \*C. B. Waldron, B. S., *Hort., For. Dean of Agr.*  
 †L. R. Waldron, Ph. D., *Supt. Substa., Dickinson.*  
 †W. F. Washburn, M. S., *Asst. Chem. (Paints).*  
 †H. O. Werner, B. S., *Asst. Hort.*  
 \*H. L. White, M. A., *Physiol. Chem.*

## OHIO.

## The Colleges of Agriculture and of Veterinary Medicine, Ohio State University, Columbus.

\*College faculty. ‡Extension staff.

- \*W. O. Thompson, A. M., D. D., LL. D., *President of University.*  
 \*Alfred Vivian, Ph. G., *Dean Coll. of Agr. Agr. Chem.*  
 ‡C. S. Wheeler, B. S., *Dir. of Agr. Ext. Work.*  
 \*D. S. White, D. V. S., *Dean Coll. Vet. Med. Vet. Med.*
- \*E. M. Allen, M. D., *Instr. Anat., Physiol.*  
 ‡M. A. Bachtell, B. S., (*Asst.*) *Agr. Chem.*  
 ‡L. P. Bailey, *Instr. Dairying (Tacoma).*  
 \*W. M. Barrows, M. S., (*Asst.*) *Zool., Ent.*  
 ‡Mary Betz, B. S., *Instr. Home Econ.*  
 \*A. M. Bleile, M. D., *Anat., Physiol.*  
 \*Anna F. Blohm, B. L., B. S., *Instr. Home Econ.*  
 \*C. E. Boord, Ph. D., *Instr. Chem.*  
 \*J. A. Bownocker, D. Sc., *Geol.*  
 \*F. H. Brown, M. S., *Florist.*  
 \*O. V. Brumley, V. S., *Vet. Surg., Dir. Clinics.*  
 ‡G. W. Bush, *State Leader, County Work.*  
 ‡Howard Call, B. S., *Asst. in Agr. Ext.*  
 \*W. L. Clevenger, B. S., (*Asst.*) *Dairying.*
- \*J. S. Coffey, B. S., (*Asst.*) *An. Husb.*  
 \*A. D. Cole, M. A., *Phys.*  
 ‡G. B. Crane, B. S., *Asst. in Ext. Schools.*  
 ‡R. B. Cruickshank, B. S., (*Asst.*) *Hort.*  
 \*O. C. Cunningham, B. S., (*Asst.*) *Dairying.*  
 \*V. H. Davis, M. S., *Hort.*  
 \*J. E. Day, B. A., *Asst. Chem.*  
 \*Mina C. Denton, B. S., *Instr. Home Econ.*  
 \*Frederica Detmers, M. S., (*Asst.*) *Bot.*  
 \*Rhoda Dick, B. S., *Instr. Home Econ.*  
 \*C. J. Drake, M. A., *Asst. Zool., Ent.*  
 \*E. P. Durrant, M. A., (*Asst.*) *Anat., Physiol.*  
 \*R. F. Earhart, Ph. D., *Phys.*  
 ‡Porter Elliott, B. S., *Asst. Agron. (West Mansfield).*  
 \*P. H. Elwood, B. S., *Asst. in Hort.*

## OHIO—Continued.

- \*Oscar Erf, B. S., *Dairying*.  
†H. E. Eswine, *Asst in Agr. Ext.*  
\*W. L. Evans, Ph. D., *Chem.*  
\*J. I. Falconer, Ph. D., (*Asst.*) *Rural Econ.*  
\*C. W. Foulk, B. A., *Chem.*  
\*H. B. Froning, B. A., *Instr. Bact.*  
†Mary Graber, B. S., *Instr. Home Econ.*  
\*R. F. Griggs, Ph. D., (*Asst.*) *Bot.*  
†W. E. Hanger, B. S., *Specialist in Agr. Ext.*  
\*Maude C. Hathaway, B. S., *Instr. Home Econ.*  
\*H. G. Hell, Ph. B., *Instr. Phys.*  
†W. J. Hendrix, B. S., *Instr. Agr. Chem. (Trotwood)*.  
\* T. M. Hills, Ph. D., (*Asst.*) *Geol.*  
\*J. S. Hine, B. S., (*Assoc.*) *Zool.*  
\*Elmer Hockett, B. A., *Asst. Chem.*  
†Hulda Horst, B. S., *Instr. Home Econ.*  
\*J. L. Hutchison, B. S., *Instr. Agr. Chem.*  
\*F. W. Ives, B. S. M. E., *Instr. Agr. Engin.*  
\*F. S. Jacoby, B. S., (*Asst.*) *Poultry Husb.*  
\*Olive B. Jones, B. A., *Libr.*  
†Trevia Kauffman, B. S., *Instr. Home Econ.*  
\*D. J. Kays, B. S., (*Asst.*) *An. Husb.*  
†M. C. Kilpatrick, *Instr. Poultry Husb.*  
\*W. J. Kostir, M. A., *Instr. Zool.*  
\*F. H. Kreckler, Ph. D., (*Asst.*) *Zool.*  
\*F. A. Lambert, D. V. M., (*Asst.*) *Vet. Med.*  
\*F. L. Landacre, B. A., *Zool.*  
\*W. R. Lazenby, M. Agr., F. Eng., *For.*  
\*J. F. Lyman, Ph. D., *Agr. Chem.*  
\*A. G. McCall, B. S., *Agron.*  
\*E. F. McCampbell, Ph. D., M. D., *Bact.*  
†J. E. McClintock, B. S., *Supervisor Ext. Publications and Corresp. Courses.*  
\*G. M. McClure, B. A., *Asst. in Agr. Chem.*  
\*G. W. McCuen, B. S., *Asst. Agr. Engin.*  
\*Lella McGuire, B. S., *Asst. in Home Econ.*  
†Ivan McKellip, M. S., *Cow Testing Work (Coop. U. S. D. A.)*.  
\*William McPherson, Ph. D., *Chem.*  
\*Clara G. Mark, A. M., *Asst. Geol.*  
\*C. L. Metcalf, M. A., (*Asst.*) *Zool.*  
\*L. M. Montgomery, M. S., *Hort.*  
\*C. B. Morrey, M. D., *Bact.*  
†Maud Okey, B. S., *Instr. Home Econ.*  
\*Herbert Osborn, M. S., *Zool.*  
†Virgil Overholt, B. S., *Instr. Agr. Engin.*  
\*Wendell Paddock, M. S., *Hort.*  
†W. H. Palmer, M. S., (*Asst.*) *An. Husb.*  
\*O. W. Pflueger, B. S., *Instr. For.*  
\*T. D. Phillips, B. S., (*Asst.*) *Rural Econ.*  
\*T. G. Phillips, M. S., *Instr. Agr. Chem.*  
\*C. S. Plumb, B. S., *An. Husb.*  
\*C. S. Prosser, Ph. D., *Geol.*  
\*H. C. Ramsower, B. S., *Agr. Engin.*  
\*A. G. G. Richardson, V. M. D., *Vet. Path.*  
\*Josephine Richardson, B. S., *Asst. in Home Econ.*  
\*S. M. Salisbury, B. S., (*Asst.*) *An. Husb.*  
\*F. J. Salter, M. S., *Instr. Agr. Chem.*  
\*J. H. Schaffner, M. S., *Bot.*  
\*N. E. Scherer, M. S., (*Asst.*) *For.*  
\*E. M. Scott, M. S., (*Asst.*) *Vet. Path.*  
\*R. J. Seymour, M. S., M. D., (*Assoc.*) *Anat., Physiol.*  
†Nan Sharples, B. S., *Instr. Home Econ.*  
\*J. N. Shoemaker, D. V. M., (*Asst.*) *Vet. Med.*  
\*Septimus Sisson, S. B., *Vet. Med.*  
\*Lila Skinner, B. S., *Asst. in Home Econ.*  
\*J. W. Smith, M. S., *Met. Sci. (U. S. D. A.)*.  
\*V. C. Smith, B. S., *Asst. to Dean.*  
\*J. H. Snook, D. V. M., (*Asst.*) *Vet. Surg.*  
\*W. A. Starin, M. A., (*Asst.*) *Bact.*  
\*F. W. Stemple, A. B., *Instr. Agron.*  
\*Sarah E. Stimmel, B. S., *Asst. in Home Econ.*  
\*R. B. Stoltz, B. S., (*Asst.*) *Dairying.*  
\*T. C. Stone, B. S., *Asst. An. Husb.*  
\*W. G. Stover, A. M., (*Asst.*) *Bot.*  
\*A. D. Taylor, M. S., *Landsc. Archi. (Cleveland)*.  
\*L. E. Thatcher, Ph. G., *Asst. in Field Crops.*  
\*E. N. Transeau, Ph. D., *Plant Physiol.*  
\*Marian L. Tucker, B. S., *Instr. Home Econ.*  
\*Anna R. Van Meter, M. S., (*Asst.*) *Home Econ.*  
\*W. A. Verwiebe, B. A., *Instr. Geol.*  
\*Paul Vogt, Ph. D., *Rural Econ.*  
\*Grace G. Walker, B. S., *Asst. in Home Econ.*  
\*A. E. Waller, B. S., *Asst. Agron.*  
\*Max Wershow, D. V. M., *Instr. Path.*  
\*Jessie Whitacre, B. S., *Instr. Home Econ.*  
\*Edna N. White, B. A., *Home Econ.*  
†Florence Willison, B. S., *Instr. Home Econ.*  
\*J. R. Withrow, Ph. D., *Chem.*

## Ohio Agricultural Experiment Station, Wooster

†Station staff.

†C. E. Thorne, M. S. A., *Director. Soil Tech.*

- †E. R. Allen, Ph. D., *Asst. Soil Tech.*  
†J. W. Ames, M. S., *Chem.*  
†D. C. Babcock, A. B., *Asst. Bot.*  
†F. H. Ballou, *Field Asst. Hort. (Newark)*.  
†F. M. Beegle, B. S., *Asst. in Nutr.*  
†W. C. Boardman, B. S., *Asst. in Soil Invest.*  
†G. E. Boltz, B. S., *Asst. Chem.*  
†A. Bonazzi, B. Agr., *Asst. Soil Tech.*  
†M. O. Bugby, B. S., *Supt. Expt. Farm. Cortland.*  
†C. E. Bundy, *Supt. Expt. Farm, Paulding.*  
†W. J. Buss, *Asst. An. Husb.*  
†J. W. Calland, B. S., *Asst. For.*

## OHIO—Continued.

- †B. E. Carmichael, M. S., *An. Husb.*  
 †Mabel K. Corbould, *Asst. Chem. (Milling and Baking Tech.)*.  
 †J. J. Crumley, Ph. D., *Asst. For.*  
 †B. S. Davisson, A. M., *Asst. in Soil Biol.*  
 †G. R. Eastwood, B. S., *Supt. Expt. Farm, Troy.*  
 †C. W. Ellenwood, *Office Asst. Hort.*  
 †E. B. Forbes, Ph. D., *Nutr.*  
 †C. M. Fritz, M. S., *Asst. in Nutr.*  
 †D. W. Galehouse, *Supt. Expt. Farm, Youngstown.*  
 †C. A. Gearhart, B. S., *Asst. Agron.*  
 †W. H. Goodwin, M. S., *Asst. Ent.*  
 †H. A. Gossard, M. S., *Ent.*  
 †Oliver Gossard, B. S., *Asst. in Soil Invest.*  
 †W. J. Green, *Vice Dir., Hort.*  
 †W. K. Greenbank, *Libr.*  
 †J. W. Hammond, M. S., *Assoc. An. Husb.*  
 †C. C. Hayden, M. S., *Dairying.*  
 †Victor Herron, *Supt. Expt. Farm, Owensville.*  
 †William Holmes, *Farm Mgr.*  
 †J. S. Houser, M. S., *Assoc. Ent.*  
 †True Houser, B. S., *Asst. Bot. (German-town).*  
 †J. G. Humbert, B. S., *Asst. Bot.*  
 †J. L. King, B. S., *Asst. Ent.*  
 †W. H. Kramer, *Bursar.*  
 †H. D. Lewis, *Supt. Expt. Farm, Carpenter.*  
 †J. P. Markley, *Supt. Expt. Farm, Strongs-ville.*  
 †F. K. Mathis, *Office Asst. in Bot.*  
 †F. N. Meeker, B. S., *Executive Asst.*  
 †T. R. Middaugh, *Office Asst. in Dairying.*  
 †C. W. Montgomery, *Chief Farm Mgt. (Newark).*  
 †L. E. Morgan, M. A., *Asst. in Nutr.*  
 †E. C. Morr, *Office Asst. in Agron.*  
 †D. C. Mote, M. S., *Asst. An. Husb. (Parasitol. Invest.)*.  
 †C. A. Patton, *Asst. Agron., Climat. Ob-server.*  
 †A. E. Perkins, M. S., *Asst. in Dairying.*  
 †S. N. Rhue, B. S., *Asst. in Nutr.*  
 †T. E. Richmond, M. S., *Asst. Chem.*  
 †E. J. Riggs, B. S., *Supt. Expt. Farm, Ma-rietta.*  
 †W. L. Robison, B. S., *Asst. in An. Husb.*  
 †L. L. Rummell, B. S., *Editor.*  
 †C. J. Schollenberger, *Asst. Chem.*  
 †Edmund Secrest, B. S., *For.*  
 †A. D. Selby, B. S., *Bot.*  
 †J. W. Smith, *Climat. in Coop. U. S. Weather Bureau (Columbus).*  
 †O. H. Smith, B. S., *Asst. in Soil Invest.*  
 †D. E. Snyder, *Office Asst. in For.*  
 †J. A. Stenius, B. S., *Asst. Chem.*  
 †J. A. Sutton, *Supt. Expt. Farm, Findlay.*  
 †A. E. Taylor, B. S., *Asst. For.*  
 †Paul Thayer, M. S., *Asst. Hort.*  
 †H. F. Tuttle, M. S., *Asst. Soil Tech.*  
 †D. R. Van Atta, B. S., *Supt. Expt. Farm, Cincinnati.*  
 †H. M. Wachter, *Supt. Expt. Farm, Ger-mantown.*  
 †R. C. Walton, B. S., *Asst. Bot.*  
 †F. A. Welton, B. S., *Assoc. Agron.*  
 †R. D. Whitmarsh, M. S., *Asst. Ent.*  
 †C. G. Williams, *Agron., Assoc. Soil Fert. Invest.*

## OKLAHOMA.

## Oklahoma Agricultural and Mechanical College and the Agricultural Experiment Station, Stillwater.

\*College faculty. †Station staff. ‡Extension staff.

\*J. W. Cantwell, M. A., *President.*\*†W. L. Carlyle, M. S., *Dir. of Sta. Dean of Agr.*†W. D. Bentley, *Dir. of Ext. State Agent.*\*†B. A. Ahrens, B. S., *Asst. (in charge) Poultry Husb.*‡Edith Allen, A. B., *Specialist in Home Econ.*\*†M. A. Beeson, D. Sc., *Agron.*\*E. A. Benbrook, D. V. M., *Asst. Vet.*\*W. L. Blizzard, B. S., *Asst. An. Husb.*\*†C. A. Burns, B. S., *Asst. in Dairying.*\*Susie Cage, *Asst. in Dom. Arts.*\*C. O. Chambers, Ph. D., *Bot.*‡Emma Chandler, B. S., *Girls' Club Work.*\*Edith E. Coffman, B. S., *Asst. Dom. Sci.*\*†A. N. Daane, M. S., *Asst. Agron.*\*†W. L. Fowler, B. S. A., *An. Husb.*†C. K. Francis, Ph. D., *Chem.*\*†J. M. Fuller, B. S., *Dairying.*\*†L. G. Herron, B. S., *Asst. Hort.*\*V. T. Jackson, A. B., *Asst. Chem.*\*C. D. Learn, M. A., *Asst. Bot.*\*†L. L. Lewis, M. S., D. V. M., *Zool., Vet. Med.; Vet.*\*†C. H. McElroy, B. S., *Asst. Bact.*†Wallace Macfarlane, Ph. D., *Agron. (Soils).*\*Ruth E. Michaels, *Dom. Sci.*\*H. W. Moorhouse, A. B., *Marketing.*\*D. C. Mooring, M. S., *Prin. of Short Courses.*†D. G. Morgan, A. B., *Asst. Chem.*\*†H. R. Painter, B. S., *Asst. Ent.*\*L. C. Raiford, Ph. D., *Chem.*\*H. E. Redenbaugh, A. B., *Asst. Chem.*\*†F. M. Rolfs, Ph. D., *Hort.*\*†C. E. Sanborn, M. A., *Ent.*\*†W. P. Shuler, D. V. M., M. S., *Assoc. Vet. Med.*†O. C. Smith, A. M., *Asst. Chem.*\*†D. A. Spencer, B. S., *Asst. An. Husb.*



## OKLAHOMA—Continued.

- \*Walter Stemmons, B. J., *Editor Coll. Pubs.*
- \*Mildred Talbot, A. B., *Asst. Dom. Arts.*
- \*Nora Talbot, B. S., *Dom. Arts.*
- \*H. L. Thomson, B. A., *Asst. Farm Engr.*  
(in charge)

- \*Marguerite Walters, B. S., *Actg. Libr.*
- \*R. O. Whittenton, A. B., *Asst. Zool.*
- †George Wilson, *Agr. for Schools.*
- †J. A. Willson, B. Agr., *Asst. State*  
*Agt.*

**Agricultural and Normal University, Langston.**

\*College faculty.

\*I. E. Page, A. M., *President.*

- \*Mary J. McCain, B. S. D., *Dom. Sci.*
- \*Mary L. McCrary, *Dom. Econ.*

- \*H. C. Ray, *Asst. Agr.*
- \*Virginia Smith, *Dom. Sci.*

**OREGON.****Oregon State Agricultural College and the Agricultural Experiment Station, Corvallis.**

\*College faculty. †Station staff. ‡Extension staff.

\*W. J. Kerr, D. Sc., *President.*\*†A. B. Cordley, M. S., *Dean School of Agr. Dir. of Sta.*†R. D. Hetzel, A. B., LL. B., *Dir. of Ext. Work and Farmers' Insts.*†R. W. Allen, M. S., *Supt. Branch Sta.,*  
*Hermiston.*\*W. M. Atwood, Ph. D., (*Assoc.*) *Bot.*†W. A. Barr, B. S., *Field Dairyman.*\*†A. F. Barss, M. S., *Research Asst. Hort.*\*†H. P. Barss, M. S., *Bot., Plant Path.*\*†R. F. Beard, B. S., *Instr. Chem.; Asst.*  
*Chem.*\*†T. D. Beckwith, M. S., *Bact.*\*I. D. Blake, A. M., *Instr. Zool., Physiol.*\*†A. G. B. Bouquet, B. S., (*Asst.*) *Veg.*  
*Gard.; Oler.*†L. R. Breithaupt, B. S., *Supt. Branch*  
*Sta., Burns (Coop. U. S. D. A.).*\*Helen B. Brooks, *Dom. Art.*†W. S. Brown, B. S., (*Asst.*) *Hort.*†H. M. Carnes, B. S., *Research Asst. in*  
*Farm Crops.*\*Anna Castleberry, *Instr. Dom. Art.*\*A. C. Chandler, Ph. D., *Instr. Zool.,*  
*Physiol.*\*Laur Cheney, B. S., *Instr. Dom. Sci.*\*J. E. Cooter, B. S., *Instr. Agron.*\*G. V. Copson, M. S., (*Asst.*) *Bact.*†Helen Cowgill, B. S., *Boys' and Girls'*  
*Indus. Clubs.*\*Bertha Davis, M. S., *Instr. Dom. Sci.*\*Alice M. Dolman, M. S., (*Asst.*) *Dom.*  
*Sci.*\*†James Dryden, *Poultry Husb.*\*R. A. Dutcher, M. S., *Instr. Agr. Chem.*†M. O. Evans, B. S., *Asst. State Leader.*†E. B. Fitts, (*Asst.*) *Dairy Husb.*\*Lillian Francis, B. S., *Instr. Dom. Sci.*\*†V. R. Gardner, M. S., *Pomol.*†L. G. Gentner, B. S., *Asst. Ent., Branch*  
*Sta., Medford.*\*Grace P. Gillett, B. S., *Instr. Dom. Sci.*\*W. J. Gilmore, B. S., (C. E., A. E.),  
(*Asst.*) *Farm Mech.*\*†R. R. Graves, M. S., *Dairy Husb.*\*H. S. Hammond, M. A., *Instr. Bot.*†C. E. Hill, B. S., *Asst. at Branch Sta.,*  
*Moro.*\*D. C. Howard, B. S., *Instr. Dairying.*\*†G. R. Hyslop, B. S., (*Assoc.*) *Crop Prod.;*  
*Asst. Agron.*\*A. Grace Johnson, B. S., *Instr. Dom.*  
*Sci.*†F. W. Kehrll, B. S., *Asst. Field Dairy-*  
*man.*\*C. N. Kennedy, B. S., (*Asst.*) *An. Husb.*\*†E. J. Kraus, B. S., *Research Assoc.*  
*Hort.*†C. C. Lamb, *Instr. Poultry Husb.*†J. E. Larson, B. S., (*Asst.*) *Agron.*\*W. E. Lawrence, B. S., (*Asst.*) *Bot.*\*†C. I. Lewis, M. S. A., *Hort. V. Dir. of*  
*Sta.*\*Sarah L. Lewis, B. S., (*Asst.*) *Dom. Sci.*\*†A. L. Lovett, B. S., (*Assoc.*) *Ent.; Assoc.*  
*Ent. Actg. Head of Dept.*\*Ralph McBurney, B. S., *Instr. Bact.*\*A. C. McCulloch, B. S., *Instr., Poultry*  
*Husb.*†C. J. McIntosh, *Editor Ext. Press Buls.*\*†Hector Macpherson, Ph. D., *Econ. Head*  
*of Coll. Bureau of Farm Org. and Mgt.*†J. R. Magness, B. S., *Research Asst. in*  
*Hort.*†P. V. Maris, *Farm Mgt. Dem.*\*R. E. Marshall, M. S., *Instr. Hort.*\*Ava B. Milam, M. A., *Dom. Sci.*\*Barbara Moore, B. S., *Instr. Dom. Art.*\*Christie Moore, B. S., *Instr. Dom. Sci.*\*†O. M. Nelson, B. S., *Instr. An. Husb.;*  
*Asst. An. Husb.*\*C. E. Owens, M. A., *Instr. Bot.*†J. H. Paine, B. S., *Asst. in Poultry Husb.*\*A. L. Peck, B. S., (*Assoc.*) *Landsc. Gard.,*  
*Flor.*\*Helen Peer, *Instr. Dom. Art.*

## OREGON—Continued.

- †Bert Pilkington, B. S., *Research Asst. Chem.*  
 \*Cora E. Platt, *Instr. Dom. Art.*  
 †G. B. Posey, M. S., *Research Asst. in Bot.*  
 \*†E. L. Potter, B. S., *An. Husb.*  
 \*†W. L. Powers, M. S., (*Assoc.*) *Irrig., Drainage; Assoc. Agron.*  
 †F. C. Reimer, M. S., *Supt. Branch Sta., Talent.*  
 †R. E. Reynolds, M. S., (*Asst.*) *An. Husb.*  
 \*L. E. Robinson, B. S., *Instr. Rural Archi.*  
 †R. H. Robinson, M. S., *Research Asst. Chem.*  
 \*†C. V. Ruzek, B. S., (*Asst.*) *Soils; Asst. Agron.*  
 \*†G. R. Samson, B. S., *Instr. An. Husb.; Asst. An. Husb.*  
 \*†H. D. Scudder, B. S., *Agron.*  
 \*June Seeley, B. S., *Instr. Dom. Art.*
- ‡H. C. Seymour, *in charge Boys' and Girls' Indus. Clubs.*  
 \*B. T. Simms, D. V. M., *Vet. Sci.*  
 \*†O. G. Simpson, B. S., (*Asst.*) *Dairy Husb.; Asst. in Dairy Mfrs.*  
 \*†G. V. Skelton, C. E., *Highway Engin.*  
 †D. E. Stephens, B. S., *Supt. Branch Sta., Moro (Coop. U. S. D. A.).*  
 \*Elizabeth R. C. Sykes, A. B., *Instr. Zool., Physiol.*  
 \*G. F. Sykes, M. S., *Zool., Physiol.*  
 \*†H. V. Tartar, B. S., (*Assoc.*) *Agr. Chem.; Chem.*  
 ‡Anna M. Turley, B. S., *Instr. Dom. Sci.*  
 ‡H. A. Vickers, *Ext. Sec.*  
 †J. R. Winston,<sup>1</sup> M. S., *Plant Path., Branch Sta., Hood River.*  
 †Robert Withycombe, B. S., *Supt. Branch Sta., Union.*

## PENNSYLVANIA.

## The School of Agriculture and Agricultural Experiment Station of the Pennsylvania State College, State College.

\*College faculty. †Station staff. ‡Extension staff.

- \*E. E. Sparks, Ph. D., LL. D., *President of College.*  
 \*†R. L. Watts, M. S., *Dean School of Agr. Dir. of Sta.*  
 ‡M. S. McDowell, M. S., *Dir. Agr. Ext. State Leader.*
- \*†J. F. Adams, M. S., (*Asst.*) *Bot.; Asst. Bot.*  
 \*†C. R. Anderson, M. F., *Instr. For.; Asst. For.*  
 \*†E. O. Anderson, M. S., *Instr. Agron.; Asst. Agron.*  
 \*†R. A. Andree, B. S., *Instr. Agron.; Asst. Agron.*  
 \*†E. L. Anthony, M. S., *Instr. Dairy Husb.; Asst. Dairy Husb.*  
 \*H. P. Armsby, Ph. D., LL. D., *An. Nutr.*  
 \*†C. M. Arthur, B. S., *Instr. Agr. Ext.*  
 \*†P. S. Baker, B. S., *Asst. Agron.*  
 \*†S. I. Bechdel, B. S., *Instr. Dairy Husb.; Asst. in Dairying.*  
 \*†J. R. Bechtel, B. S., *Instr. Hort.; Asst. Hort.*  
 \*†I. J. Bibby, M. S., *Instr. Dairy Husb.; Asst. Dairy Husb.*  
 \*†E. A. Borland, M. S., *Dairy Husb. Ext.*  
 \*†G. S. Bulkley, B. S., *Instr. Dairy Husb.; Asst. Dairy Husb.*  
 \*†R. R. Chaffee, M. F., (*Asst.*) *For.; Asst. For.*  
 \*†C. W. Clemmer, B. S., *Asst. in Agr. Ext.*  
 \*†H. P. Cooper, M. S., *Asst. Agron.*  
 \*†A. W. Cowell, B. S., (*Assoc.*) *Hort.; Asst. Hort.*  
 \*†F. B. Crooks, B. S., *Asst. Poultry Husb.*  
 \*†W. H. Darst, B. S., (*Asst.*) *Agron.; Asst. Agron.*  
 \*†E. E. De Turk, B. S., *Instr. Agr. Chem.; Asst. Agr. Chem.*  
 \*†R. W. Duck, B. S., *Asst. An. Husb.*
- \*†H. D. Edmiston, *Asst. in Agr. Ext.*  
 \*W. G. Edwards, M. S., *Instr. Bot., For.*  
 \*†E. S. Erb, M. S., *Assoc. Chem.*  
 \*†D. B. Etters, B. S., *Asst. Dairy Husb.*  
 \*†F. N. Fagan, B. S., (*Asst.*) *Hort.; Asst. Ho t.*  
 \*†J. A. Ferguson, M. A., M. T., *For.*  
 \*†William Frear, Ph. D., *Expt. Agr. Chem. Vice Dir. Sta.*  
 \*†F. D. Gardner, B. S., *Agron.*  
 \*†Paul Gerlaugh, B. S., *Instr. An. Husb.; Asst. An. Husb.*  
 \*†W. C. Gillespie, B. S., *Asst. in Expt. Pomol.*  
 \*†G. C. Given, Ph. D., (*Assoc.*) *Expt. Agr. Chem.; Expt. Agr. Chem.*  
 \*†C. L. Goodling, M. S., *Supt. Farms.*  
 \*†W. R. Gorham, B. S., (*Asst.*) *Agr. Ext.*  
 \*†Julia C. Gray, *Libr., Editor.*  
 \*†G. R. Green, B. A., (*Asst.*) *For.; Asst. For.*  
 \*†M. F. Grimes, B. S., *Asst. An. Husb.*  
 \*†A. R. Haas,<sup>1</sup> M. S., *Instr. Bot.; Asst. Bot.*  
 \*†D. E. Haley, B. S., *Instr. Agr. Chem.; Asst. Agr. Chem.*  
 \*†A. A. Hansen, B. S., *Instr. Bot.; Asst. Bot.*  
 \*†H. H. Hayner, B. S., D. V. M., (*Asst.*) *An. Husb.; Asst. An. Husb.*  
 \*†E. K. Hibshman, B. S., (*Asst.*) *Agr. Ext.*  
 \*†J. B. Hill, Ph. D., (*Assoc.*) *Bot.; Asst. Bot.*  
 \*†H. M. Hills, *Gardener.*  
 \*†E. R. Hitchener, B. S., *Asst. Bact.*

## PENNSYLVANIA—Continued.

- |  |  |
|--|--|
| *†F. J. Holben, B. S., <i>Asst. Chem.</i>  | *†L. O. Overholts, Ph. D., <i>Instr. Bot.; Asst. Bot.</i>                    |
| *†M. G. Kains, M. S., <i>Hort.</i>   | *†F. S. Putney, M. S. ( <i>Asst.</i> ) <i>Dairy Husb.; Asst. Dairy Husb.</i> |
| *†J. P. Kelly, M. A., <i>Instr. Bot.; Asst. Bot.</i>                                   | *†L. F. Reese, B. S., <i>Instr. Hort.; Asst. Hort.</i>                       |
| *†F. D. Kern, Ph. D., <i>Bot.</i>  | *†B. O. Severson, M. S., ( <i>Assoc.</i> ) <i>An. Husb.; Asst. An. Husb.</i> |
| *†L. S. Kleinschmidt, B. S., <i>Asst. Poultry Husb.</i>                                | *†J. M. Sherman, M. S., <i>Instr. Bact.; Bact.</i>                           |
| *†F. P. Knoll, <i>Asst. in Dairy Mfrs.</i>   | *†R. S. Smith, B. S. A., ( <i>Asst.</i> ) <i>Agron.; Asst. Agron.</i>        |
| *†H. R. Kraybill, M. S., <i>Instr. Agr. Chem.; Asst. Agr. Chem.</i>                    | *†J. P. Stewart, Ph. D., <i>Expt. Pomol.</i>                                 |
| *†C. W. Larson, <sup>1</sup> M. S., <i>Dairy Husb.</i>                                 | *†C. W. Stoddart, Ph. D., <i>Agr. Chem.</i>                                  |
| *†Margaret B. MacDonald, Ph. D. ( <i>Assoc.</i> ) <i>Agr. Chem.; Assoc. Agr. Chem.</i> | *†W. D. Swope, <i>Asst. Dairy Husb.</i>                                      |
| *†Pearl MacDonald, M. S., <i>Instr. Home Econ. Ext.</i>                                | *†W. H. Tomhave, B. S., <i>An. Husb.</i>                                     |
| *†T. I. Mairs, M. S., <i>Agr. Ed. and Supt. Corresp. Courses.</i>                      | *†L. C. Tomkins, <i>Instr. Agr. Ext.</i>                                     |
| *†A. F. Mason, M. S., <i>Instr. Hort. Ext.</i>   | *†R. A. Waldron, <sup>1</sup> M. S., <i>Instr. Bot.; Asst. Bot.</i>          |
| *†Elizabeth B. Meek, <sup>1</sup> M. S., ( <i>Asst.</i> ) <i>Bact.; Bact.</i>          | *†F. P. Weaver, B. S., <i>Instr. Agr. Ext.</i>                               |
| *†C. E. Myers, M. S., ( <i>Asst.</i> ) <i>Expt. Veg. Gard.; Assoc. Hort.</i>           | *†J. W. White, M. S., ( <i>Asst.</i> ) <i>Agron.; Assoc. Agron.</i>          |
| *†M. Jane Newcomb, B. S., <i>Instr. Home Econ. Ext.</i>                                | *W. R. White, M. S., ( <i>Asst.</i> ) <i>Agr. Ed.</i>                        |
| *†C. F. Noll, M. S., ( <i>Asst.</i> ) <i>Expt. Agron.; Asst. Expt. Agron.</i>          | *†E. I. Wilde, B. S., <i>Instr. Hort.; Asst. Hort.</i>                       |
| *†L. J. Obold, B. S., <i>Asst. Agron.</i>  | *†E. L. Worthen, M. S., ( <i>Assoc.</i> ) <i>Agron.; Asst. Agron.</i>        |
| *†C. R. Orton, M. S., ( <i>Assoc.</i> ) <i>Bot.; Asst. Bot.</i>                        |  |

## Pennsylvania State College Institute of Animal Nutrition, State College.

†Institute staff.

†H. P. Armsby, Ph. D., LL. D., *Director.*

- |  |  |
|--|--|
| †W. W. Braman, M. S., <i>Assoc. in An. Nutr.</i>   | †K. K. Jones, M. S., <i>Asst. in An. Nutr.</i>     |
| †D. C. Cochrane, B. S., <i>Assoc. in An. Nutr.</i> | †J. E. Mensching, B. S., <i>Asst. in An. Nutr.</i> |
| †J. A. Fries, M. S., <i>Asst. Dir.</i>             | †E. W. Schmidt, B. S., <i>Asst. in An. Nutr.</i>   |
| †J. E. Isenberg, M. S., <i>Asst. in An. Nutr.</i>  |  |

## PORTO RICO.

## College of Agriculture and Mechanic Arts of the University of Porto Rico, Mayaguez.

\*College faculty.

\*R. S. Garwood, A. M., *Dean of College.*

- |   |  |
|---|--|
| *W. C. Forbush, B. S., <i>Instr. An. Husb.</i>    | *C. J. Hunn, B. S., <i>Hort.</i>             |
| *A. Fredholm, M. D., <i>Agron.</i>                | *Francisco Lopez, B. S., <i>Instr. Chem.</i> |
| *Policarpio González, B. S., <i>Asst. in Agr.</i> | *Elena R. Prats, B. S., <i>Instr. Biol.</i>  |
| *S. D. Gray, M. S., <i>Ent., Soils.</i>           |  |

## Agricultural Experiment Station, Mayaguez.

Under the supervision of the Office of Experiment Stations, States Relations Service, United States Department of Agriculture.

†Station staff.

†D. W. May, M. Agr., *Agronomist in charge.*

- |  |  |
|--|--|
| †E. W. Brandes, M. S., <i>Plant Path.</i>        | †C. F. Kinman, B. S., <i>Hort.</i>           |
| †J. O. Carrero, B. S. Ch. E., <i>Asst. Chem.</i> | †T. B. McClelland, A. B., <i>Asst. Hort.</i> |
| †P. L. Gile, A. B., <i>Chem.</i>                 | †R. H. Van Zwaluwenburg, B. S., <i>Ent.</i>  |

<sup>1</sup> On leave.

## PORTO RICO—Continued.

## Insular Experiment Station, Rio Piedras.

Under the control of the Board of Commissioners of Agriculture of Porto Rico.

†Station staff.

†W. V. Tower, B. S., *Director*.

†W. B. Cady, B. S., *Chem.*

†H. B. Cowgill, M. S., *Seedling Expert*.

†R. C. Silva, *Translator*.

†E. G. Smyth, *Asst. Ent. (Ensenada)*.

†J. A. Stevenson, B. S., *Path.*

†G. N. Wolcott, M. S., *Asst. Ent.*

## RHODE ISLAND.

## Rhode Island State College and the Agricultural Experiment Station, Kingston.

\*College faculty. †Station staff. ‡Extension staff.

\*Howard Edwards, M. A., LL. D., *President*.

\*†B. L. Hartwell, Ph. D., *Dir. of Sta. Agr. Chem. (\*) Agron., Chem. (†)*

‡A. E. Stene, M. S., *Dir. Ext. Service. (State Ent.)*

\*G. E. Adams, B. S., *Agron.*

\*John Barlow, M. A., *Zool.*

\*Howland Burdick, B. S., (*Asst.*) *Dairying and Farm Mach., Mgr. Farm.*

†Dorothy W. Caldwell, M. S., *Asst. An. Brdg., Path.*

\*Mabel Campbell, B. S., *Home Econ.*

\*G. R. Cobb, B. S., *Hort.*

\*C. L. Coggins, *Asst. in Phys.*

\*R. B. Cooley, B. S. A., *An. Husb.*

†S. C. Damon, B. S., *Asst. in Field Expts.*

†David Elder, B. S. A., *State Leader Farm Dem.*

†Marguerite W. Elkins, M. S., *Asst. in An. Brdg., Path.*

†F. O. Fitts, B. S., *Asst. Chem.*

\*F. J. Godin, B. S., *Instr. Hort.*

\*†P. B. Hadley, Ph. D., *Bact.; An. Brdg., Path.*

‡M. A. Hawkins, B. S., *Agron. Dem.*

†Nathaniel Helme, *Met.*

†L. P. Howard, B. S., *Asst. Chem.*

†W. C. Irons, B. S., *Asst. in Field Expts.*

‡Jennie E. Koehler, B. S., *Instr. Home Econ.*

‡D. J. Lambert, *Instr. Poultry Husb.*

\*V. L. Leighton, Ph. D., *Chem.*

†E. Elizabeth Mearns, *Libr.*

†G. E. Merkle, B. S., *Asst. Chem.*

\*Harriet L. Merrow, M. A., *Bot.*

\*Helen E. Peck, A. B., *Libr.*

†F. R. Pember, M. S., *Asst. in Glasshouse Expts.*

\*E. H. Perkins, B. S., *Instr. Geol., Chem.*

\*H. W. Rickey, *Poultry Husb.*

\*F. H. Smith, M. S., (*Asst.*) *Chem.*

\*G. E. Spencer, B. S., *Instr. Bot.*

‡E. K. Thomas, *Supt. Junior Ext. Work.*

†P. H. Wessels, M. S., *Assoc. Chem.*

## SOUTH CAROLINA.

## Clemson Agricultural College and the Agricultural Experiment Station, Clemson College.

\*College faculty. †Station staff. ‡Extension staff.

\*W. M. Riggs, B. and M. E., LL. D., *President. Consulting Engin. (\*)*

\*†J. N. Harper, B. S., M. Agr., *Dean Agr. Dept. Dir. of Sta. Agron. (†)*

‡W. W. Long, M. S., *Dir. of Ext. State Dem. Agt.*

‡G. M. Anderson, B. S., *Asst. in Ent.*

\*W. B. Aull, B. S., (*Asst.*) *Bot.*

\*W. A. Barnette, D. V. M., (*Asst.*) *Vet. Sci. (Asst. State Vet.).*

\*†H. W. Barre, M. A., *Bot., Bact.; Bot., Plant Path. (State Path.)*

\*R. N. Brackett, Ph. D., *Dir. Chem. Dept. (State Chem.).*

\*L. B. Brandon, B. S., *Foreman Coll. Farm.*

\*J. M. Burgess, B. S., (*Assoc.*) *Dairying.*

\*W. F. Burleigh, D. V. M., *Asst. State Vet.*

\*F. H. H. Calhoun, Ph. D., *Geol., Vice Dir. Agr. Dept.*

‡P. H. Calvin, B. S., *Live Stock Dem. Agt.*

\*O. M. Clark, B. S., (*Asst.*) *Agron.*

\*†A. F. Conradi, M. S., *Ent., Zool.; Ent. (State Ent.).*

\*†F. J. Crider, M. S. A., (*Assoc.*) *Hort.; Assoc. Hort.*

†R. E. Currin, *Supt. Pee Dee Substa., Florence.*

†S. W. Evans, *Treas.*

†R. C. Faulwetter, Ph. D., *Assoc. Bot., Plant Path.*

\*†R. O. Feeley, D. V. S., *Vet. Sci.; Consult. Vet. (State Vet.).*

‡W. W. Fitzpatrick, B. S., *Live Stock Dem. Expert (Coop. U. S. D. A.).*



## SOUTH CAROLINA—Continued.

- \*Benjamin Freeman, B. S., *Asst. in Chem.*
- †Burns Gillison, *Supt. Expt. Farm.*
- †J. A. Goodwin, B. S., *Supt. Coast Land Sta., Summerville.*
- \*M. B. Hardin, *Chem. Emeritus.*
- †F. C. Hare, *Poultry Dem. Expert.*
- \*D. H. Henry, B. S., (*Assoc.*) *Chem.*
- †F. W. Hofmann, M. A., *Marketing Dem. Expert.*
- \*†W. L. Hutchinson, M. S., *Agron.; Assoc. Agron.*
- \*C. F. Inman, B. S., *Instr. Chem.*
- \*†T. E. Keitt, B. S., *Soils; Chem.*
- \*†C. J. King, B. S., *Instr. Soils; Asst. Chem.*
- \*G. F. Lipscomb, B. S., (*Asst.*) *Chem.*
- \*R. B. Lowry,<sup>1</sup> B. S., *Asst. in Agron., Farm Mech.*
- \*J. H. Mitchell, M. S., (*Asst.*) *Chem.*
- \*†C. C. Newman, B. S., *Hort.*
- †C. F. Niven, M. S., *Asst. in Hort.*
- \*T. G. Poats, M. E., E. E., *Phys.*
- †S. S. Rittenberg, *Agr. Publicist.*
- \*D. B. Rosenkrans, A. B., *Instr. Bot., Bact.*
- †T. A. Rouse, B. S., *Asst. An. Husb.*
- \*†R. L. Shields, B. S. A., *An. Husb., Dairy-ing; An. Husb.*
- \*W. E. Speas, A. M., *Instr. Phys.*
- †F. G. Tarbox, jr., B. S., *Asst. Agron.*
- \*†W. A. Thomas, B. S., (*Asst.*) *Ent., Zool.; Asst. Ent.*
- \*Katherine B. Trescot, *Libr.*
- \*A. H. Ward, B. S., *Asst. in Agron., Farm Mech.*
- †J. O. Williams, B. S. A., *Live Stock Dem. Agt.*

## State Agricultural and Mechanical College of South Carolina, Orangeburg.

\*College faculty. †Extension staff.

\*†R. S. Wilkinson, Ph. D., *President. Agr. Chem. Ext. Work.*

- \*Mrs. Mattie J. Battiste, *Instr. Dom. Econ.*
- \*H. P. Butler, M. A., *Vice Pres.*
- \*Clara C. Davis, *Instr. Sewing.*
- \*Mrs. Cornelia J. Gregg, *Instr. Dom. Econ.*
- \*J. W. Harper, A. B., *Rural Econ. and Agr. History.*
- \*B. F. Hubert, B. S., *Head Agr. Dept., Agr.*
- \*C. H. Jones, *Instr. Nature Study.*
- \*E. A. Lawrence, A. B., *Rural Sociol.*
- \*T. J. Lyles, *Asst. in Dairying.*
- \*Mattie L. Mays, R. N., *Rural Sanitation and Home Nursing.*
- \*†S. M. Pinckney, *Instr. Farm Dem. Methods.*
- †Nellie J. Robinson, *Ext. Worker in Home Econ.*
- \*F. M. Staley, B. S. A., *Instr. Dairying, Truck Gard., An. Indus.*
- \*J. I. Washington, *Rural Credits and Accts.*
- \*Julia M. Williams, *Instr. Dom. Art.*

## SOUTH DAKOTA.

## South Dakota State College of Agriculture and Mechanic Arts and the Agricultural Experiment Station, Brookings.

\*College faculty, †Station staff. ‡Extension staff.

\*E. C. Perisho, M. S., LL. D., *President.*\*†J. W. Wilson, M. S. A., *Dir. of Sta. An. Husb. (\*†)*†G. W. Randlett, B. S., *Dir. of Ext.*

- \*Edward Binnewies, M. S., (*Asst.*) *Chem.*
- \*G. L. Brown, Ph. D., *Vice Pres.*
- \*Ada B. Caldwell, *Indus. Art.*
- \*†Manley Champlin, M. S., (*Asst.*) *Agron.; Cereal Work (Coop. U. S. D. A.).*
- \*Wilson Cramer, jr., *Instr. An. Husb.*
- \*B. A. Dunbar, M. A., (*Assoc.*) *Chem.*
- \*Charlotte Elliott, M. A., *Instr. Bot.*
- †Matthew Fowlds, B. S., *Asst. Agron.*
- \*Nola K. Fromme, B. S., (*Assoc.*) *Home Econ. Asst. Prin. Ele. School of Agr.*
- \*George Gilbertson, B. S., *Asst. Ent.*
- \*Maud Goddard, (*Asst.*) *Indus. Art.*
- \*†H. W. Gregory, B. S., *Asst. in Dairy Husb.*
- \*†N. E. Hansen, M. S., *Hort., For. Vice Dir. Sta.*
- \*A. S. Harding, A. M., *Rural Sociol. and Econ.*
- \*Genevieve Hartgering, B. A., *Instr. Home Econ.*
- \*H. H. Hoy, M. S., (*Asst.*) *Phys.*
- \*†A. N. Hume, Ph. D., *Agron. Supt. Sub-stas.*
- †E. H. Hungerford, M. S., *Dairy Analyst.*
- \*†J. G. Hutton, M. S., (*Assoc.*) *Agron.; Asst. Agron.*
- \*†V. R. Jones, M. S., (*Asst.*) *Dairy Husb.; Asst. Dairy Husb.*
- \*†Christian Larsen, M. S. A., *Dairy Husb.*

<sup>1</sup> On leave.

## SOUTH DAKOTA—Continued.

- †R. A. Larson, *Sec.*  
 \*†C. C. Lipp, D. V. M., *Vet. Med.; Consult. Vet.*  
 †Howard Loomis, B. A., *Agron. Analyst.*  
 †W. M. Mair, *Supt. Boys' and Girls' Clubs.*  
 \*H. B. Mathews, M. S., *Phys.*  
 †T. A. Meehan, *Dairy Specialist.*  
 \*C. W. Michel, M. A., *Bot.*  
 \*S. P. Miller, A. M., *Zool.*  
 †J. D. Morrison, *Crop Work, Highmore Substa. (Coop. U. S. D. A.).*  
 \*W. H. Powers, M. A., *Libr.*  
 \*†H. E. Rilling, B. S., *Asst. Agr.*  
 \*H. C. Severin, M. A., *Ent. (State Ent.).*
- \*†J. H. Shepard, B. S., *Chem.*  
 \*Grace V. Sommers, B. S., *Instr. Home Econ.*  
 \*G. A. Starring, A. B., *Agr. Editor.*  
 \*E. D. Stivers, B. S., *Prin. Ele. School of Agr.*  
 \*†F. C. Stoltenberg, *Florist.*  
 †H. H. Stoner, M. D., *Supt. Short Courses.*  
 \*B. L. Thompson, B. S., *(Assoc.) An. Husb.*  
 †Vey Valentine, B. S., *Asst. in Hog Cholera Work.*  
 \*Ruth A. Wood, B. S., *Instr. Home Econ.*  
 \*†G. E. Youngburg, M. S., *Asst. Chem.*

## TENNESSEE.

## College of Agriculture and the Agricultural Experiment Station of the University of Tennessee, Knoxville.

\*College faculty. †Station staff. ‡Extension staff.

- \*Brown Ayres, Ph. D., LL. D., D. C. L., *President of University.*  
 \*†H. A. Morgan, B. S. A., *Dean Coll. of Agr. Dir. of Sta. Zool., Ent. (\*†)*  
 †C. A. Keffer, M. S., *Dir. Div. of Ext.*
- \*†S. M. Bain, A. B., *Bot.*  
 \*†G. M. Bentley, M. A., *(Assoc.) Ent.; Assoc. Ent.*  
 †F. H. Broome, *Libr., Sec.*  
 †W. A. Campbell, *Farm Foreman.*  
 †J. E. Converse, *Asst. in Coop. Expts., Crossville.*  
 †R. N. Crane, *Specialist in Poultry Husb.*  
 \*Jessie M. Dempster, *Asst. in Home Econ.*  
 \*H. R. Duncan, B. S., *Instr. Dairying.*  
 †S. H. Essary, M. S., *Asst. Bot., Mycol.*  
 \*Lucy E. Fay, A. M., B. L. S., *Libr.*  
 \*C. H. Gordon, Ph. D., *Geol.*  
 \*W. E. Grainger, B. S., *Asst. in Chem.*  
 \*Olive Harriss, *(Asst.) Home Econ.*  
 \*Lena B. Henderson, B. S., *Instr. Bot.*  
 \*C. O. Hill, Ph. C., M. S., *(Assoc.) Org. and Agr. Chem.*  
 †W. A. Holding, B. S., *Asst. Chem.*  
 †C. A. Hutton, B. S. A., *Specialist in Dairy Husb.*  
 \*Moses Jacob, V. M. D., *Vet. Sci.*  
 †C. D. Lowe, D. V. M., *Specialist in An. Husb.*  
 †J. C. McAmis, B. S., *Specialist in Agron.*  
 †W. H. McIntire, M. S., *Soil Chem.*  
 †R. H. Milton, *Supt. Tobacco Sta., Clarksville (Coop. U. S. D. A.).*  
 †C. A. Mooers, B. S., *Chem., Agron.*
- \*†Maurice Mulvania, M. S., *(Asst.) Bact.; Bact.*  
 †R. M. Murphy, M. S., *Specialist in An. Husb. (Coop. U. S. D. A.).*  
 †L. R. Neel, B. S. A., *Asst. in Coop. Expts., Nashville.*  
 \*J. T. Porter, Ph. D., *Phys.*  
 \*J. C. Pridmore, M. S., *(Assoc.) Agron.*  
 †S. A. Robert, B. S., *Supt. West Tenn. Sta., Jackson.*  
 †W. N. Rudd, *Asst. in Coop. Expts., McMinnville.*  
 \*A. A. Schaeffer, Ph. D., *(Assoc.) Zool.*  
 †W. A. Schoenfeld, B. S., *Specialist in Markets and Rural Organization.*  
 †W. G. Shaw, V. M. D., *Vet.*  
 †S. M. Spangler, *Asst. in Plat Work.*  
 †H. C. Stockwell, B. S., *Specialist in Dairy Husb., Jackson (Coop. U. S. D. A.).*  
 †H. D. Tate, B. S., *Asst. Dir. Ext. Div.*  
 \*Louise G. Turner, M. A., *(Asst.) Home Econ.*  
 \*†J. F. Voorhees, M. S. A., *Instr. Met.; Consult. Met.*  
 \*C. E. Wait, C. E., M. E., Ph. D., *Gen. and Anal. Chem.*  
 \*†O. M. Watson, *Instr. Hort.; Hort.*  
 †H. R. Watts, B. S., *Asst. Ent.*  
 †L. G. Willis, B. S., *Asst. Chem.*  
 \*†C. A. Willson, M. S. A., *An. Husb., Dairying.*

## Tennessee Agricultural and Industrial State Normal School, Nashville.

\*College faculty.

\*W. J. Hale, *President.*

- \*J. E. Anderson, A. B., *Phys., Chem.*  
 \*Clara Brown, *Handicraft, Plain Sewing.*  
 \*Martha Brown, *Nurse Training, House-keeping.*
- \*A. C. Burnett, *Agr.*  
 \*Harriet Hodge, *Dom. Sci.*  
 \*J. L. White, *Asst. in Agr. and Applied Sci.*

## TEXAS.

**Agricultural and Mechanical College of Texas and the Agricultural Experiment Station, College Station.**

\*College faculty. †Station staff. ‡Extension staff.

\*W. B. Bizzell, M. A., D. C. L., *President.*

†B. Youngblood, M. S., *Dir. of Sta.*

‡Clarence Ousley, *Dir. Ext. Service.*

- \*O. M. Ball, Ph. D., *Biol.*  
 \*E. F. Bates, M. S., *Instr. Phys.*  
 \*F. W. Bell, B. S., (*Assoc.*) *An. Husb.*  
 †R. L. Bennett, *Advisor in Crop Credits.*  
 \*B. O. Bethell, D. V. M., *Instr. Vet. Sci.*  
 \*S. W. Bilsing, M. A., (*Asst.*) *Ent.*  
 †E. E. Binford, B. S., *Supt. Substa., Beeville.*  
 \*J. D. Blackwell, B. Pd., B. S. (*Assoc.*) *Agr. Ed.*  
 †F. H. Blodgett, Ph. D., *Plant Path.*  
 \*W. T. Bryant, B. S., Ch. E., *Instr. Chem.*  
 \*L. B. Burke, B. S., (*Assoc.*) *An. Husb.*  
 \*†J. C. Burns, B. S., *An. Husb. in charge Feed. Invest.*  
 \*E. G. Campbell, M. S., *Instr. Biol.*  
 †Bernice Carter, *State Agt. Home Dem. Work.*  
 \*Hugh Cassidy, M. A., (*Asst.*) *Biol.*  
 \*J. A. Clutter, B. S., *Instr. Dairy Husb.*  
 †A. B. Conner, B. S., *Agron. in charge Vice Dir. Sta.*  
 \*T. J. Conway, B. S., *Asst. An. Husb.*  
 †V. L. Cory, B. S., *Supt. Substa., Denton.*  
 †O. K. Courtney, B. S., *Asst. Ent.*  
 \*I. E. Cowart, A. M., (*Asst.*) *Hort.*  
 \*A. L. Darnell, B. S., *Asst. Dairy Husb.*  
 †R. E. Dickson, B. S., *Supt. Substa., Spur.*  
 \*R. C. Dunn, D. V. M., *Instr. Vet. Sci.*  
 †R. W. Edwards, B. S., *Supt. Coop. Substa., Chillicothe (U. S. D. A.).*  
 †H. M. Elliott, M. A., *Advisor in Rural Econ.*  
 †C. M. Evans, M. S. A., *Advisor in An. Husb.*  
 \*†J. H. Foster, M. F., *For.; For. in charge (State For.).*  
 †J. H. Ford, *Agron., Prairie View.*  
 \*†Mark Francis, D. V. M., *Vet. Sci.; Vet.*  
 †G. S. Fraps, Ph. D., *Chem. in charge (State Chem.).*  
 †C. M. Garren, Ph. B., *Agron.*  
 †Mrs. G. M. Garren, *Home Econ. Dem.*  
 \*E. C. Gee, B. S. A. E., *Agr. Engin.*  
 \*H. B. Gordon, Ph. D., (*Asst.*) *Chem.*  
 †R. M. Harkey, *Field Organizer.*  
 †R. N. Harvey, B. S., *Poultryman in charge.*  
 \*H. E. Hayden, jr., M. A., (*Asst.*) *Biol.*  
 \*M. L. Hayes, A. M., *Agr. Ed.*  
 \*C. C. Hedges, Ph. D., *Chem.*  
 \*F. W. Hensel, jr., M. S., (*Assoc.*) *Hort.*  
 †Frank Hodges, B. S., *Asst. Chem.*  
 †S. B. Holman, *Gen. Sec.*  
 †W. S. Hotchkiss, *Hort. Supt. Substa. Troup.*  
 †E. P. Humbert, Ph. D., *Plant Brdg.*  
 †Mrs. M. E. Hunter, *Home Econ. Dem. for Negro Women, Prairie View.*  
 \*A. H. Hutchinson, Ph. D., *Asst. Biol.*  
 †J. W. Jackson, B. S., *Supt. Substa., Pecos.*  
 †Mrs. N. P. Jackson, *Organizer of Rural Women.*  
 †H. H. Johnson,<sup>1</sup> B. S., *Agron.*  
 †J. M. Jones, M. S., *An. Husb., Brdg. Invest.*  
 †R. E. Karper, B. S., *Supt. Substa., Lubbock.*  
 †D. T. Killough, B. S., *Sci. Asst. Substa. Nacogdoches.*  
 \*E. J. Kyle, M. S. A., *Dean School of Agr. Hort.*  
 †W. H. G. Lampe, D. V. M., *Hog Cholera Dem. Work (Coop. U. S. D. A.).*  
 †W. B. Lanham, B. S., *Hort.*  
 †H. H. Laude, B. S., *Supt. Substa., Beaumont.*  
 †A. H. Leidigh, B. S., *Agron.*  
 \*E. E. McAdams, B. S., *Instr. Phys.*  
 \*N. M. McGinnis, B. S., (*Assoc.*) *Hort.*  
 †H. L. McKnight, *Field Organizer.*  
 \*S. A. McMillan, B. S., (*Assoc.*) *Agron.*  
 †G. T. McNess, *Supt. Substa., Nacogdoches.*  
 \*W. H. McPheeters, B. S., (*Asst.*) *Phys.*  
 \*W. T. Magee, B. S., (*Asst.*) *An. Husb.*  
 \*R. P. Marsteller, D. V. M., *Vet. Sci.*  
 \*J. O. Morgan, Ph. D., *Agron.*  
 \*W. P. Nelson, jr., (*Asst.*) *Chem.*  
 †Helge Ness, M. S., *Hort. in charge.*  
 \*J. C. Olsen, B. S. A. E., (*Assoc.*) *Agr. Engin.*  
 \*J. B. Overstreet, B. S., *Instr. Chem.*  
 †F. B. Paddock, B. S., *Ent. in charge (State Ent.).*  
 \*A. E. Parmelee, B. S., *Instr. Chem.*  
 †S. D. Pearce, *Insp. Feed Control Service.*  
 †Walter Peteet, *Farm Reporter.*  
 \*A. T. Potts, B. S., (*Assoc.*) *Hort.*  
 †R. L. Pou, B. S., *Dairy Worker.*  
 \*Charles Puryear, M. A., C. E., LL. D., *Dean of Coll.*  
 †T. M. Reddell, *Supt. Feed. and Brdg. Substa.*  
 \*E. L. Reed, B. A., *Instr. Biol.*

<sup>1</sup> On leave.

## TEXAS—Continued.

†T. B. Reese, *Insp. Feed Control Service.*  
 \*E. B. Reynolds, M. S., *Instr. Agron.*  
 \*Leroy Rhodes, B. S., *Asst. Agr. Engin.*  
 †R. H. Ridgell, B. S., *Asst. Chem.*  
 \*J. W. Ridgway, M. S., *Dairy Husb.*  
 †J. H. Rogers, *Insp. Feed Control Service.*  
 \*S. G. Rubinow, M. S., *Asst. in Agr. Ed.*  
 †H. Schmidt, D. V. M., *Vet.*  
 †A. K. Short, B. S., *Supt. Substa., Temple.*  
 †Cornelia Simpson, *Dem. in Home Econ.*  
 \*F. J. Skeeler, B. S., (*Asst.*) *Phys.*  
 †R. L. Smith, *Organizer in Negro Work, Prairie View.*  
 †W. T. P. Sprott, B. S., *Asst. Chem.*  
 †James Sullivan, *Executive Sec., Feed Control Service.*  
 †J. L. Thomas, *Specialist in Dairy and Creamery Work (Coop. U. S. D. A.).*

\*M. K. Thornton, Jr., A. M., *Instr. Chem.*  
 †A. S. Ware, *Sec.*  
 †Louis Wermelskirschen, B. S., *Agron.*  
 †W. M. Wickes, *Insp. Feed Control Service.*  
 †R. E. Willard, M. S., *Farm Mgt. Expert in charge (Coop. U. S. D. A.).*  
 †H. H. Williamson, B. S., *State Agt. in Club Work.*  
 †N. E. Winters, B. S., *Supt. Substa., Angleton.*  
 †T. H. Wolters, *Insp. Feed Control Service.*  
 \*C. A. Wood, B. S. A., (*Assoc.*) *Agron.*  
 †W. H. Wood, *Insp. Feed Control Service.*  
 \*W. T. Wright, B. S., *Phys.*  
 \*M. H. Young, B. S., *Instr. Agron.*

Prairie View State Normal and Industrial College, *Prairie View.*

\*College faculty.

\*E. L. Blackshear, *Principal.*

\*Mayme Atherton, *Asst. in Cooking.*  
 \*Ruth E. Cox, *Asst. in Sewing.*  
 \*Miss C. B. Drisdale, *Sewing, Millinery.*  
 \*H. S. Estelle, *Asst. in Agr.*  
 \*A. D. Ewell, *Foreman Laundry.*  
 \*Mrs. R. L. Ewell, *Asst. in Laundry.*  
 \*Katie V. Fulton, *Asst. in Sewing.*

\*J. T. Hodges, *Libr.*  
 \*Miss C. G. Howard, *Asst. in Cooking.*  
 \*Mrs. Ethel L. McGee, *Cooking, Dom. Econ.*  
 \*J. V. Smith, *Asst. in Agr.*  
 \*C. H. Waller, *Agr., Supt. Farm. and Can-nery.*  
 \*A. T. Wood, *Asst. in Agr.*

## UTAH.

Agricultural College of Utah and the Agricultural Experiment Station, *Logan.*

\*College faculty. †Station staff. ‡Extension staff.

\*J. A. Widtsoe, LL. D., Ph. D., *President.*  
 \*†E. D. Ball, Ph. D., *Dir. of Sta. Dir. School of Agr.*  
 ‡E. G. Peterson, Ph. D., *Dir. of Ext. Div.*

\*†Byron Alder, B. S., (*Asst.*) *Poultry Husb.; Poultryman.*  
 \*S. L. Bingham, *Instr. Dairying.*  
 †A. F. Bracken, B. S., *Foreman Nephi Substa.*  
 †E. B. Brossard, B. S., *Farm Mgt. Dem.*  
 †N. I. Butt, B. S., *Asst. Agron.*  
 \*G. B. Caine, A. M., (*Asst.*) *An. Husb.*  
 \*†J. T. Caine, III, M. S. A., *An. Husb. Asst. Dir. Ext. Div.*  
 †A. C. Carrington, *Instr. Junior Voc. Ext.*  
 \*†W. E. Carroll, Ph. D., *An. Husb. Asst. Dir. School of Agr.*  
 †E. T. Carter, B. S., *Asst. Bact., Chem.*  
 †H. A. Christiansen, B. S., *Instr. Farm. Mgt.*  
 \*Rhoda B. Cook,<sup>1</sup> B. S., *Dom. Art.*  
 †Blanche Cooper, B. S., *Home Construction and Sanitation.*  
 \*C. E. Davis, Ph. D., (*Asst.*) *Chem.*  
 \*†A. D. Egbert, D. V. M., *Instr. Poultry Husb.; Asst. Poultryman.*

‡B. R. Eldredge, B. S., (*Asst.*) *Dairying.*  
 †R. J. Evans, Ph. D., *State Leader Farm Mgt.*  
 \*†H. J. Frederick, D. V. M., *Vet. Sci.; Vet.*  
 \*†W. E. Goodspeed, B. S., *Instr. Hort.; Asst. Hort.*  
 \*†J. E. Greaves, Ph. D., *Bact., Physiol. Chem.; Bact. and Actg. Chem.*  
 †Violet Greenhalgh, B. S., *Libr.*  
 \*†H. R. Hagan, B. S., *Instr. Ent.; Asst. Ent.*  
 \*†F. S. Harris, Ph. D., *Agron. Dir. School of Agr. Engin.*  
 †M. L. Harris, B. S., *Instr. Farm Mgt.*  
 \*†G. R. Hill, Jr., Ph. D., *Bot.; Plant Path.*  
 \*†C. T. Hirst, M. S., (*Asst.*) *Chem.; Asst. Chem.*  
 †J. C. Hogenson, M. S. A., *State Leader Junior Voc. Ext.*  
 \*†W. H. Homer, Jr., M. S., *Hort.*  
 \*LeGrande Humpherys, B. S., (*Asst.*) *Farm Mach.*

<sup>1</sup> On leave.



## UTAH—Continued.

- †J. W. Jones, B. S., *Supt. Nephi Farm.*  
 †J. H. Linford, D. Di., *Supt. Corresp. Studies.*  
 †Gertrude M. McCheyne, B. S., *Home Econ.*  
 \*†H. J. Maughan, B. S., *Instr. Agron.; Asst. Agron.*  
 †L. A. Merrill, B. S., (*Asst.*) *Farm Mgt.*  
 †Claire Parrish, B. S. *Instr. Junior Voc. Ext.*  
 †J. W. Paxman, (*Asst.*) *Dry Farming.*  
 \*Othelia Peterson, B. S., *Instr. Dom. Art.*  
 \*†William Peterson, B. S., *Geol.*  
 \*C. W. Porter, Ph. D., *Chem. Dir. School of Home Econ.*  
 \*†B. L. Richards, B. S., *Instr. Bot.; Asst. Plant Path.*  
 \*Lavinia Richardson, B. S., *Instr. Dom. Art.*
- \*Agnes Saunders, A. B., M. Pd., (*Asst.*) *Foods, Dietetics.*  
 \*Elizabeth C. Smith, B. L., *Libr.*  
 \*†L. A. Smith, B. S., *Instr. Bact.; Asst. Bact.*  
 \*C. J. Sorensen, B. S., *Instr. Zool.*  
 \*George Stewart, B. S., *Instr. Agron.*  
 †R. H. Stewart, B. S., *Instr. Farm Mgt.*  
 \*George Thomas, Ph. D., *Agr. Econ.*  
 \*†E. G. Titus, Sc. D., *Zool., Ent.; Ent.*  
 †H. J. Webb, B. S., *Instr. Farm Mgt.*  
 †J. P. Welch, B. S., *Instr. Farm Mgt.*  
 \*†F. L. West, Ph. D., *Phys.; Met.*  
 \*R. B. West, C. E., *Agr. Engin.*  
 †Hettie White, B. S., *Instr. Home Econ.*  
 \*Eleanore Wilkinson, *Home Econ.*  
 †L. M. Winsor, B. S., (*Asst.*) *Irrig.*

## VERMONT.

College of Agriculture and the Agricultural Experiment Station of the University of Vermont and State Agricultural College, Burlington.

\*College faculty. †Station staff. ‡Extension staff.

\*G. P. Benton, D. D., LL. D., *President.*

\*†J. L. Hills, Sc. D., *Dean Coll. of Agr. Dir. of Sta. Agron. (\*)*

‡Thomas Bradlee, B. S., *Dir. Ext. Service.*

- †G. F. Anderson, *Asst. Chem.*  
 †E. L. Baker, B. S., *Computer.*  
 †H. E. Bartram, B. S., *Asst. Plant Path.*  
 \*†R. T. Burdick, B. S., (*Asst.*) *Agron., Farm Mech.*  
 \*†G. P. Burns, Ph. D., *Bot.*  
 \*B. A. Chandler, M. F., *Instr. For.*  
 †Jay Coryell, *Asst. State Leader.*  
 \*††W. H. Crockett, *Editor.*  
 \*†M. B. Cummings, Ph. D., *Hort.*  
 †Annette C. Dimock, *Instr. Home Econ.*  
 †R. C. Downing, B. S., *Asst. Vet.*  
 \*F. C. Fiske, B. S., *Farm Supt.*  
 \*L. H. Flint, B. S., *Instr. Bot.*  
 \*†Stanley Hargreaves, *Gardener.*  
 \*†A. F. Hawes, M. F., *For. (State For.).*  
 \*J. K. Hooper, *Lect. on Met.*  
 †E. L. Ingalls, A. B., *State Agt. Boys' and Girls' Club Work.*  
 \*F. K. Jackson, M. D., *Physiol.*  
 \*†F. B. Jenks, B. S., *Agr. Ed. Asst. to Dir.*  
 \*†H. F. Johnson, B. S., *Asst. Dairy Husb.*
- †C. H. Jones, M. S., *Chem.*  
 \*H. A. D. Leggett, B. S., *Instr. Poultry Husb.*  
 \*†B. F. Lutman, Ph. D., *Plant Path.*  
 \*Josephine A. Marshall, B. S., *Instr. Home Econ.*  
 †T. F. Moran, *Asst. in Dairying (Jericho).*  
 \*†A. K. Peitersen, M. A., *Instr. Bot.; Asst. Bot.*  
 \*H. F. Perkins, Ph. D., *Zool.*  
 \*†F. A. Rich, V. S., M. D., *Vet. Sci.; Vet.*  
 \*†Jennie L. Rowell, B. S., *Asst. Chem.*  
 \*P. A. Schneider, B. S., *Instr. Zool.*  
 †W. C. Stone, M. S., *Asst. Hort.*  
 \*††G. F. E. Story, B. S., *An. and Dairy Husb.*  
 \*Bertha M. Terrill, A. M., *Home Econ.*  
 †Bessie M. Thayer, Ph. B., *Instr. Home Econ.*  
 †C. G. Williamson, B. S., *Asst. Chem.*  
 †M. C. Wilson, B. S., *Farm Mgt. Dem.*

## VIRGINIA.

Virginia Agricultural and Mechanical College and Polytechnic Institute and the Agricultural Experiment Station, Blacksburg.

\*College faculty. †Station staff. ‡Extension staff.

\*†J. D. Eggleston, A. M., *President. Acting Dir. Ext. Work.*

\*†H. L. Price, M. S., *Dean of Agr. Dept. Hort. (\*)*

†W. J. Schoenc, M. S., *Acting Dir. of Sta. Ent. (State Ent.)*

†B. G. Anderson, B. S., *Supt. Appomattox Sta. (Coop. U. S. D. A.).*

†E. T. Batten, B. S., *Supt. Nansemond County Sta., Holland.*

## VIRGINIA—Continued.

- \*W. G. Chrisman, D. V. S., *Vet. Sci.*  
†R. P. Cocke, *Supt. Williamsburg Sta.*  
†D. D. Digges, M. S., *Supt. Charlotte Sta.*  
†A. W. Drinkard, Jr., Ph. D., *Assoc. Hort.*  
†W. B. Ellett, Ph. D., *Chem.*  
\*†F. D. Fromme, Ph. D., *Plant Path., Bact.*  
†W. W. Green, *Supt. Tobacco Invest. and Bowling Green and Louisa Stas. (Coop. U. S. D. A.).*  
†J. T. Grissom, M. S., *Asst. Chem.*  
†J. C. Hart, B. S., *Supt. Chatham Sta. (Coop. U. S. D. A.).*  
†H. H. Hill, M. S., *Assoc. Chem.*  
†A. N. Hodgson, M. S., *Supt. Martinsville Sta.*  
\*†E. R. Hodgson, M. S., (*Assoc. Agron.; Assoc. Agron. Supervisor County Expt. Stas.*)  
\*†C. W. Holdaway, B. S., (*Assoc. Dairy Husb.; Assoc. Dairy Husb.*)  
\*R. J. Holden, B. S., *Geol.*  
\*†R. E. Hunt, B. S., (*Assoc. An. Husb.; Assoc. An. Husb.*)  
‡J. R. Hutcheson, M. S., *Specialist in An. Husb.*  
\*†T. B. Hutcheson, M. S., *Agron.*  
\*A. A. Ingham, B. S., *Instr. Hort.*
- \*Elinor I. Jones, A. B., *Libr.*  
\*D. S. Lancaster, M. S., *Instr. An. Husb.*  
\*J. B. Lucas, B. S., *Asst. Chem.*  
\*J. B. McBryde, C. E., *Chem.*  
\*J. M. McBryde, Ph. D., Sc. D., *Pres. Emcritus.*  
\*†T. J. Murray, M. S., (*Assoc. Bact.; Assoc. Bact.*)  
†K. E. E. Quantz, B. S., *Asst. in Plant Path.*  
†G. S. Ralston, M. S., (*Assoc. Hort.*)  
\*F. L. Robeson, M. E., (*Assoc. Phys.*)  
\*†W. D. Saunders, *An. and Dairy Husb.*  
†M. T. Smulyan, Ph. D., *Ent. Research Work.*  
\*E. A. Smyth, jr., A. M., LL. D., *Biol.*  
\*H. S. Stahl, M. S., (*Assoc. Biol.*)  
\*†‡G. C. Starcher, B. Agr., (*Assoc. Hort.; Asst. Hort.*)  
†J. M. Trimble, M. S., *Supt., Staunton Sta.*  
\*C. E. Vawter, B. S., *Phys.*  
\*†C. I. Wade, *Treas., (Christiansburg).*  
\*J. W. Watson, Ph. D., *Inorg. Chem.*  
\*†T. K. Wolfe, M. S., *Instr. Agron.; Asst. Agron.*

## Virginia Truck Experiment Station, Norfolk.

†Station staff.

†T. C. Johnson, A. M., *Director. Hort.*

- †D. E. Fink, M. S. A., *Ent. (Coop. U. S. D. A.).*  
†J. A. McClintock, M. S., *Asst. Plant Path.*  
†G. R. Parrish, *Treas.*
- †L. B. Smith, B. S., *Asst. State Ent.*  
†J. C. Westcott, *Hort. Foreman.*  
†H. H. Zimmerley, B. S., *Asst. Hort.*

## Hampton Normal and Agricultural Institute, Hampton.

\*College faculty. ‡Extension staff.

- \*H. B. Frissell, D. D., LL. D., *Principal.*  
\*†C. K. Graham, *Dir. Agr. Dept. and Agr. Ext. Work.*
- \*W. L. Aiken, *Mgr. Shellbanks Dairy.*  
\*J. L. B. Buck, *Instr. Farm Phys., Asst. to Agr. Dir.*  
\*E. S. Christy, *Instr. Farm Accts.*  
\*†R. R. Clark, *Instr. An. Husb., Vet.*  
\*J. W. Coughlin, *Chem.*  
\*R. W. Crouse, *Instr. Farm Crops.*  
\*B. L. Davis, *in charge Horse Barn.*  
‡G. J. Davis, *Rural Community Work.*  
\*Sabrina Dunnington, *Teacher Dom. Sci.*  
\*Ina H. Fenwick, *Teacher Dom. Arts.*  
\*F. S. Gammack, *Instr. Poultry Husb.*  
\*A. G. Gilbert, *Mgr. Shellbanks Farm.*  
\*Ada Gilmore, *in charge Laundry.*  
\*Jennie H. Hart, *Teacher Dom. Arts.*  
\*Lenora E. Herron, *Libr.*  
\*Mary R. Kennedy, *Teacher Home Econ.*
- \*Peter Kinghorn, *Florist, Landsc. Gardener.*  
\*Bertina A. Leete, *Home Econ.*  
\*Louis Martin, *Instr. Ele. Agr.*  
\*R. T. Neal, *Instr. Bot., Ent.*  
\*Caroline D. Pratt, *Instr. Dom. Arts.*  
\*P. L. Prattis, *Poultryman, Shellbanks Farm.*  
\*G. A. Scott, *Instr. Hort.*  
\*P. F. Skofeld, *Instr. Dairying.*  
\*†J. F. Smith, *in charge Cope Farm.*  
\*Clara M. Snow, *in charge Shellbanks Farm School.*  
\*Maud V. Stickle, *Dom. Sci.*  
\*Helen Sutherlin, *Instr. Sewing.*  
\*Sarah White, *Instr. Sewing, Weaving.*

## WASHINGTON.

State College of Washington and the Agricultural Experiment Station,  
Pullman.

\*College faculty. †Station staff. ‡Extension staff.

\*E. O. Holland, Ph. D., *President.*\*†‡I. D. Cardiff, Ph. D., *Dir. of Sta. Head Bot. Dept. (\*†) Dir. Bureau of Farm Development.*‡W. S. Thornber, M. S., *Dir. of Ext. Dept.*\*Hannah C. Aase, Ph. D., *Instr. Bot.*\*†‡F. W. Allen, M. S. A., *Instr. Hort.; Asst. Hort.*\*E. D. Alvord, B. S., *Instr. Farm Crops.*\*Juliet L. Bane, B. S., (*Asst.*) *Dom. Econ.*\*†R. J. Barnett, M. S., *Pomol.*†‡H. L. Blanchard, *Dairy and Poultry Invest. Asst. Supt. Substa., Puyallup.*†M. B. Boissevain, B. S., *Asst. in Crops.*\*C. M. Brewster, A. M., (*Asst.*) *Inorg. and Phys. Chem.*†J. S. Caldwell, Ph. D., *in charge Fruit By-Products Invest.*\*†I. D. Charlton, B. S., *Agr. Engin.*\*R. P. Cope, B. S., (*Asst.*) *Anal. and Agr. Chem.*\*Grace Coulter, B. S., *Instr. Dom. Econ.*\*†Agnes H. Craig, B. S., *Head Home Econ. Dept.*\*P. H. Dirstine, D. V. S., *Instr. Parasitol. and Canine Diseases.*\*W. C. Ferguson, B. S., D. V. S., (*Asst.*) *Vet. Surg.*\*L. J. Fletcher, B. S., *Instr. Agr. Engin.*\*†‡Elton Fulmer, M. A., *Head Chem. Dept.; Chem. (State Chem.).*\*†E. F. Gaines, M. S., *Instr. Agron.; Asst. Cerealist.*\*†D. C. George, B. S., *Instr. Bot.; Asst. Plant Path.*\*J. H. Gooding, F. R. H. S., *Instr. Flor., Florist.*\*Mamie Haasebrock, B. S., *Instr. Home Econ.*\*E. M. Hall, B. S., *Instr. Bot.*\*W. M. Handy, B. A., *Asst. Econ. Geol.*\*†F. D. Heald, Ph. D., *Plant Path.*\*A. F. Heck, M. S., *Instr. Soils.*†Leonard Hegnauer, B. S., *Field Specialist in Soils and Crops.*\*†William Hislop, M. S., *Head An. Husb. Dept.; An. Husb.*†‡H. F. Holtz, M. S., *Asst. Soil Physicist.*\*C. E. Howell, B. S., *Instr. An. Husb.*\*C. L. Huff, D. V. S., *Instr. Meat Insp. (Spokane).*\*Lella W. Hunt, B. S., *Asst. Home Econ.*\*G. H. Jensen, Ph. D., (*Asst.*) *Bot.*\*†‡J. W. Kalkus, D. V. S., (*Asst.*) *Path., Histol.; Vet.*\*E. H. Kienholz, B. S., *Instr. Ele. Agr.*†A. J. Lashbrook, B. S., *Specialist in Dairying.*†W. A. Linklater, B. S. A., *Supt. Substa., Puyallup.*†M. A. McCall, M. S., *Supt. Adams Branch Expt. Sta., Lind.*\*C. M. McFarland, D. V. S., *Instr. Meat Insp.*†Alace McIlhinney, *Libr.*\*†C. A. Magoon, B. A., (*Assoc.*) *Bot.; Bact.*\*G. H. Martin, jr., B. S., *Instr. Bot.*\*†A. L. Melander, Sc. D., *Head Zool. Dept.; Ent.*\*Otto Menig, D. V. S., *Vet. Med.*\*F. G. Miller, M. F., *Head Dept. of For.*†R. N. Miller, M. S., *Farm Mgt. Dem.*\*†‡O. M. Morris, M. S., *Head Hort. Dept.; Hort.*\*F. W. Mulsow, A. M., (*Asst.*) *Bot. Bact.*\*†S. B. Nelson, D. V. M., *Head Dept. Vet. Sci.*†T. J. Newbill, *State Leader Boys' and Girls' Club Work.*\*†‡A. B. Nystrom, B. S., *Dairy Husb.*†G. A. Olson, M. S., *Chem.*\*Alice G. Paterson, A. B., (*Asst.*) *Anal. Chem.*\*R. M. Phillips, B. S., *Instr. Dairy Prod.*\*F. L. Pickett, Ph. D., (*Assoc.*) *Bot.*†J. N. Price, B. S., *Specialist in Dairying.*†H. L. Rees, A. B., *Plant Path., Puyallup Substa.*\*†‡E. G. Schafer, M. S., *Agron.*\*C. H. Schuele, B. S., *Instr. Chem.*\*Doris Schumaker, B. S., *Instr. Home Econ.*\*†‡George Severance, B. S., *Head Agr. Dept.; Agr.*\*†W. T. Shaw, M. S., *Zool.*\*H. P. Shellabear, M. A., *Instr. Chem.*†A. L. Sherman, B. S., *Asst. Chem.*†C. B. Sprague, M. S., *Asst. Hort.*†J. L. Stahl, B. S. A., *Hort., Puyallup Substa.*†E. B. Stookey, B. S., *Agron., Puyallup Substa.*\*A. L. Strausz, B. S., *Instr. Hort.*†Mary E. Sutherland, B. S., (*Asst.*) *Home Econ.*\*Sadie J. Swenson, *Instr. Textiles.*\*†C. C. Thom, B. S. A., *Soils; Soil Phys.*\*C. C. Todd, Ph. D., *Chem.*\*F. G. Tucker, M. S., *Instr. Phys.*\*†‡O. L. Waller, Ph. M., *Vice Pres.; Irrig. Engin.*

## WASHINGTON—Continued.

- |  |  |
|--|--|
| *E. E. Wegner, D. V. S., ( <i>Assoc.</i> ) <i>Vet. Anat., Surg.</i>                            | *W. K. Whitaker, <i>Instr. Poultry Husb.</i>     |
| *V. V. Westgate, M. A., ( <i>Asst.</i> ) <i>Flor., Gard.</i>                                   | *A. B. Wiberg, <i>Special Chem. Analyst.</i>     |
| *†Helen D. Whitaker, B. S., ( <i>Asst.</i> ) <i>Poultry Indus. Specialist in Poultry Husb.</i> | †Horace Woolman, B. S., <i>Asst. Plant Path.</i> |
|  | *T. H. Wright, B. S., <i>Instr. Dairy Mfra.</i>  |
|  | †M. A. Yothers, B. S., <i>Asst. Ent.</i>         |

## WEST VIRGINIA.

## College of Agriculture and the Agricultural Experiment Station of West Virginia University, Morgantown.

\*College faculty. †Station staff. ‡Extension staff.

\*F. B. Trotter, A. M., LL. D., *Acting President of University.*\*†J. L. Coulter, Ph. D., *Dean Coll. of Agr. Dir. of Sta.*‡C. R. Titlow, *Dir. Agr. Ext. Dept.*

- |  |  |
|--|--|
| *M. J. Abbey, B. S., <i>Agr. Ed.</i>   | *†O. M. Johnson, B. S., <i>Farm Mgt., Farm Mgt. Invest. (Coop. U. S. D. A.).</i> |
| *†W. H. Alderman, B. S. A., <i>Hort.</i>   | *†W. B. Kemp, B. S., <i>Instr. Agron.; Asst. Agron.</i>                          |
| *†E. L. Andrews, B. S., ( <i>Asst.</i> ) <i>Poultry Husb.; Asst. Poultry Husb.</i>     | ‡W. H. Kendrick, A. B., <i>in charge Boys' Club Work.</i>                        |
| *†L. D. Arnett, Ph. D., <i>Libr.</i>   | ††O. M. Kile, B. S., <i>Agr. Editor.</i>   |
| *T. C. Atkeson, Ph. D., <i>An. Husb. Emeritus.</i>                                     | †L. I. Knight, Ph. D., <i>Plant Physiol.</i>                                     |
| †Horace Atwood, M. S. A., <i>Poultryman.</i>   | †J. H. B. Krak, B. S., <i>Asst. Chem.</i>  |
| *†E. C. Auchter, B. S., ( <i>Asst.</i> ) <i>Hort.; Asst. Hort.</i>                     | †F. B. Kunst, A. B., <i>Asst. Chem.</i>  |
| ‡Nellie M. Barnett, B. S., <i>Home Econ.</i>   | *†C. A. Lueder, D. V. M., ( <i>Asst.</i> ) <i>Vet. Sci.; Vet.</i>                |
| *†F. E. Bear, M. S., <i>Soils; Soil Invest.</i>  | ‡G. L. Oliver, B. S., <i>Dairying.</i>   |
| †Anthony Berg, B. S., <i>Asst. Plant Path.</i>   | *Mary B. Oliver, B. S., <i>Instr. Home Econ.</i>                                 |
| †J. P. Bonardi, B. S., <i>Asst. Fert. Chem.</i>  | *†L. M. Peairs, M. S., <i>Ent.; Research Ent.</i>                                |
| *Rachel H. Colwell, A. M., ( <i>Assoc.</i> ) <i>Home Econ.</i>                         | *A. C. Ragsdale, B. S., <i>Instr. Dairy Husb.</i>                                |
| *†I. S. Cook, jr., B. S. A., <i>Agron.</i>   | *A. M. Reese, Ph. D., <i>Zool.</i>   |
| *†H. L. Crane, B. S., <i>Instr. Hort.; Asst. Hort.</i>                                 | †W. E. Rumsey, B. S. A., <i>Ent. (State Ent.).</i>                               |
| *†A. L. Dacy, B. S., ( <i>Assoc.</i> ) <i>Hort.; Assoc. Hort.</i>                      | †R. M. Salter, M. S., <i>Asst. Soil Chem.</i>                                    |
| †A. J. Dadisman, M. S. A., <i>Farm Mgt. Invest. (Coop. U. S. D. A.).</i>               | †C. H. Scherffius, <i>Tobacco Invest. (Coop. U. S. D. A.).</i>                   |
| *†Henry Dorsey, B. S., <i>Instr. Agron.; Asst. Agron.</i>                              | *†E. W. Sheets, M. S. A., <i>An. and Dairy Husb.</i>                             |
| †N. T. Frame, B. A., <i>State Agt. Farmers' Dem. Work.</i>                             | *J. L. Sheldon, Ph. D., <i>Bot., Bact.</i>                                       |
| †N. J. Giddings, M. S., <i>Plant Path.</i>   | *†L. F. Sutton, B. S. A., <i>Instr. Hort.; Asst. Hort.</i>                       |
| ‡Sadie R. Guseman, <i>Asst. Home Econ., Girls' Canning Clubs.</i>                      | *†A. J. Swift, M. S., <i>Instr. An. Husb.; Asst. An. Husb.</i>                   |
| †C. H. Hartley, B. S., <i>Asst. to Dir. of Agr. Ext. Dept.</i>                         | *C. W. Waggoner, Ph. D., <i>Phys.</i>  |
| †B. H. Hite, M. S., <i>Chem.</i>   | †C. E. Weakley, jr., <i>Asst. Chem.</i>  |
| †J. B. Hugett, B. Agr., <i>An. Husb. Work, Charles-town (Detailed by U. S. D. A.).</i> | †W. J. White, <i>Financial Sec.</i>  |
| *†R. R. Jeffries, B. S., <i>Instr. Hort.; Asst. Hort.</i>                              | *A. R. Whitehill, Ph. D., <i>Gen. and Anal. Chem.</i>                            |
|  | *†J. J. Yoke, B. S., <i>Instr. An. Husb.; Asst. An. Husb.</i>                    |

The West Virginia Collegiate Institute, *Institute.*

\*College faculty.

\*Byrd Prillerman, A. M., *President.*

- |  |  |
|--|--|
| *Charlotte R. Campbell, <i>Cooking.</i>                  | *N. A. Murray, B. Agr., <i>Agr. Chem., Bot.</i>      |
| *A. W. Curtis, M. Agr., <i>Dir. Agr. Dept.</i>           | *Mrs. Amanda D. Gamble-Spriggs, <i>Dress-making.</i> |
| *Mary Eubank, <i>Supt. Dom. Sci. and Arts.</i>           |  |
| *Mrs. Margaret M. Lowry, <i>Plain Sewing, Millinery.</i> |  |



## WISCONSIN.

## College of Agriculture and the Agricultural Experiment Station of the University of Wisconsin, Madison.

\*College faculty. †Station staff. ‡Extension staff.

\*C. R. Van Hise, Ph. D., LL. D., *President of University.*\*†‡H. L. Russell, Ph. D., *Dean Coll. of Agr. Dir. of Sta. Dir. of Agr. Ext. Service.*†‡C. L. Adams, *Asst. State Feed and Fert. Insp.*\*†A. R. Albert, B. S., *Asst. in Soils.*\*†‡A. S. Alexander, M. D. C., D. V. M., *Vet. Sci.; Vet.*‡Elizabeth L. Amery, B. S., *Ext. Instr. Home Econ.*\*†Miss V. B. Armstrong, *Asst. Agr. Bact.*\*†‡F. A. Aust, M. S., (Asst.) *Hort.; Hort.*\*†S. M. Babcock, Ph. D., LL. D., *Agr. Chem. (Emeritus).*\*†Freda M. Bachmann, Ph. D., *Instr. Agr. Bact.; Asst. Agr. Bact.*\*†A. C. Baer, B. S., *Instr. Dairy Husb.; Asst. Dairy Husb.*\*†‡B. A. Beach, D. V. M., (Asst.) *Vet. Sci.; Vet.*†J. A. Becker, B. S., *Asst. in Agr. Econ.*\*†‡G. H. Benkendorf, B. S., (Asst.) *Dairy Husb.; Dairy Husb.*\*†W. H. Bentley, *Asst. Agr. Chem.*†T. L. Bewick, M. S., *in charge Boys' and Girls' Club Work.*\*Cora E. Binzel, *Instr. Home Econ.*†Agnes Boeing, B. S., *Home Econ.*\*†‡J. W. Brann, M. S., *Instr. Hort.; Plant Path.; Asst. Hort.; Plant Path.*\*†A. C. Burrill, B. S., *Instr. Econ. Ent.; Asst. Econ. Ent.*\*Kathleen C. Calkins, B. S., *Asst. in Home Econ.*\*†J. H. Coffman, D. V. M., *Instr. Vet. Sci.; Asst. Vet. Sci.*\*†L. J. Cole, Ph. D., *Expt. Brdg.*\*Amy L. Daniels, Ph. D., (Assoc.) *Home Econ.*\*†C. A. Day, *Instr. Dairy Husb.; Asst. Dairy Husb.*†‡E. J. Delwiche, M. S., *Supt. Branch and Substas. (Green Bay).*\*†Helen J. Dodge, B. S., *Instr. Home Econ.*\*†H. A. Drescher, M. S., *Instr. Agr. Chem.; Asst. Agr. Chem.*\*Dora L. Earl, B. S., *Instr. Home Econ.*\*Clara M. Eckhardt, B. A., *Instr. Home Econ.*\*†J. I. Etheridge, B. S., *Asst. Agron.*\*†‡E. H. Farrington, M. S., *Dairy Husb.*\*†E. B. Fred, Ph. D., (Assoc.) *Agr. Bact.; Agr. Bact.*\*†‡W. D. Frost, Ph. D., D. Pub. H., (Assoc.) *Agr. Bact.; Agr. Bact.*\*†‡J. G. Fuller, B. S., (Assoc.) *An. Husb.; An. Husb.*\*†Heny Fulmer, M. S., *Instr. Agr. Bact.; Asst. Agr. Bact.*\*†‡C. J. Galpin, M. A., (Asst.) *Agr. Econ.; Country Life Work.*\*†J. J. Garland, B. S., *Instr. Agron.*\*W. J. Geib, M. Agr., *Soil Survey Work (Coop. U. S. D. A.).*\*†‡L. F. Graber, M. S., *Instr. Agron.; Asst. Agron.*\*Julia R. Grady, *Instr. Home Econ.*\*†E. J. Graul, B. S., *Instr. Soils; Asst. in Soils.*\*C. I. Griffith, B. S., *Asst. Agr. Engin.*\*†‡R. V. Gunn, B. S., *Asst. in Farm Mgt.*\*†‡F. B. Hadley, D. V. M., (Assoc.) *Vet. Sci.; Vet.*\*†‡J. G. Halpin, B. S., (Assoc.) *Poultry Husb.; Poultry Husb.*†R. T. Harris, *Supervisor in charge of Dairy Tests.*\*†E. B. Hart, B. S., *Agr. Chem.*\*†‡E. G. Hastings, M. S., *Agr. Bact.*\*†K. L. Hatch, B. S., *Agr. Ed. Asst. Dir. Agr. Ext. Service. State Leader.*\*†J. B. Hayes, B. S., *Instr. Poultry Husb.; Asst. Poultry Husb.*\*†C. S. Hean, B. A., *Libr.*\*†W. A. Henry, D. Agr., D. Sc., *Agr. (Emeritus).*\*†J. R. Hepler, B. S., *Instr. Hort.; Asst. Hort.*\*†B. H. Hibbard, Ph. D., *Agr. Econ. (Coop. and Marketing).*\*†‡A. W. Hopkins, B. A., *Agr. Journalism, Editor.*\*†‡G. C. Humphrey, B. S., *An. Husb.*\*Ada E. Hunt, B. A., *Instr. Home Econ.*†H. L. Ibsen, M. S., *Asst. in Expt. Brdg.*\*J. A. James, B. S., (Asst.) *Agr. Ed.*\*†A. G. Johnson, Ph. D., (Asst.) *Plant Path.; Plant Path.*\*†‡James Johnson, M. S., *Instr. Hort.; Asst. Hort.*\*†O. N. Johnson, *Asst. Poultry Husb.*\*†‡E. R. Jones, M. S., (Assoc.) *Soils; Soils.*\*†F. R. Jones, B. S., *Asst. in Agr. Engin.*†H. M. Jones, B. S. A., *Asst. Agron. (Ashland).*\*†L. R. Jones, Ph. D., D. Sc., *Plant Path.*†Myrtle Jones, B. A., *Asst. in Agr. Econ.*†J. C. Jurrjens, *Asst. Chem. (State Feed and Fert. Insp.).*\*†O. A. Juve, *Instr. Agr. Econ.; Asst. Agr. Econ.*\*†G. W. Keitt, Ph. D., (Asst.) *Plant Path.; Plant Path.*‡Elizabeth B. Kelley, (Ext. Asst.) *Home Econ.*†F. J. Kelley, B. S., *Asst. in Expt. Brdg.*\*Margaret Kephart, *Asst. in Home Econ.*

## WISCONSIN—Continued.

- \*††Frank Kleinheinz, *Instr. An. Husb.; Asst. An. Husb.*  
 \*†A. H. Kuhlman, B. S., *Instr. An. Husb.; Asst. An. Husb.*  
 \*†B. D. Leith, B. S., *Instr. Agron.; Asst. Agron.*  
 \*††C. D. Livingston, B. S., *Instr. Agr. Engin.; Asst. in Agr. Engin.*  
 \*†Henry Lunz, B. S., *Instr. Agron.; Asst. Agron.*  
 †E. L. Luther, B. S., *Supt. of Farmers' Insts.*  
 \*†E. V. McCollum, Ph. D., *Agr. Chem.*  
 \*††E. R. McIntyre, *Asst in Agr. Journalism; Editorial Asst.*  
 ††O. G. Malde, *Supt. Cranberry Sta., Grand Rapids.*  
 \*Hazel Manning, B. S., *Instr. Home Econ.*  
 \*†W. E. Markey, *Asst. An. Husb.*  
 \*††Abby L. Marlatt, M. S., *Home Econ.*  
 †Clara J. Miller, B. S., *Ext. Asst. Home Econ.*  
 \*††J. G. Milward, M. S., (*Asst.*) *Hort.; Hort.*  
 \*†J. G. Moore, M. S., M. H., (*Assoc.*) *Hort.; Hort.*  
 \*††R. A. Moore, *Agron.*  
 \*†F. B. Morrison, B. S., (*Asst.*) *An. Husb.; Asst. Dir. of Sta., An. Husb.*  
 \*†G. B. Mortimer, B. S., *Instr. Agron.; Asst. Agron.*  
 ††F. L. Musbach, B. S., *Soils. In charge Marshfield Br. Sta., Eau Claire.*  
 \*†V. E. Nelson, M. S., *Instr. Agr. Chem.; Asst. Agr. Chem.*  
 \*††A. C. Oosterhuis, M. S., (*Asst.*) *An. Husb.; An. Husb.*  
 \*††D. H. Otis, M. S., *Asst. Dean. Farm Mgt.*  
 \*Helen T. Parsons, B. S., *Instr. Home Econ.*  
 \*†W. H. Peterson, Ph. D., (*Asst.*) *Agr. Chem.; Agr. Chem.*  
 †W. Pitz, B. S., *Asst. Agr. Chem.*  
 \*††G. F. Potter, B. S., *Instr. Hort.; Asst. Hort.*  
 †R. H. Roberts, M. S., *Ext. Instr. Hort.*  
 \*†H. H. Roehm, B. S., *Asst. Agr. Bact.*
- \*†J. L. Sammis, Ph. D., (*Assoc.*) *Dairy Husb.; Dairy Husb.*  
 \*†E. C. Sauvé, B. S., *Instr. Agr. Engin.; Asst. Agr. Engin.*  
 \*†L. M. Schindler, B. A., *Instr. Agr. Engin.; Asst. Agr. Engin.*  
 \*Celestine Schmit, (*Asst.*) *Home Econ.*  
 \*Luella M. Scovill, B. S., *Instr. Home Econ.*  
 †F. H. Scribner, (*Ext. Asst.*) *An. Husb.*  
 †Nina Simmonds, B. S., *Asst. Agr. Chem.*  
 \*†Harry Steenbock, M. S., *Instr. Agr. Chem.; Asst. Agr. Chem.*  
 \*H. W. Stewart, B. S., (*Asst.*) *Soils.*  
 \*O. C. Stine, Ph. B., *Asst. in Agr. Econ.*  
 \*††A. L. Stone, (*Asst.*) *Agron.; Agron. (State Seed Insp.).*  
 †W. H. Strowd, M. S., *Chem. in charge Feed and Fert. Control Work.*  
 \*†W. A. Sumner, B. S., *Instr. Agr. Journalism; Asst. Editor.*  
 \*†H. C. Taylor, Ph. D., *Agr. Econ.*  
 \*†H. V. Tennant, B. S., *Instr. Agr. Engin.; Asst. Agr. Engin.*  
 \*††J. L. Torney, B. S., (*Asst.*) *An. Husb.; An. Husb.*  
 \*†W. E. Tottingham, M. S., (*Asst.*) *Agr. Chem.; Agr. Chem.*  
 \*†Emil Truog, M. S., *Instr. Soils; Asst. in Soils.*  
 \*Jenny A. Turner, *Instr. Home Econ.*  
 ††H. W. Ullsperger, B. S., *Asst. in Soils (Sturgeon Bay).*  
 \*††R. E. Vaughan, M. S., (*Asst.*) *Plant Path.; Plant Path.*  
 \*†H. L. Walster, M. A., (*Asst.*) *Soils; Soils.*  
 ††H. O. Watrud, M. S., *Ext. Instr. Agr. Econ.; Asst. Agr. Econ.*  
 \*††W. W. Weir, B. S., *Instr. Soils; Asst. in Soils.*  
 \*††F. M. White, M. S., (*Asst.*) *Agr. Engin.; Agr. Engin. (in charge pro tem.).*  
 \*††A. R. Whitson, B. S., *Soils.*  
 \*Inez Willson, B. S., *Asst. in Home Econ.*  
 \*†H. F. Wilson, M. S., *Econ. Ent.*  
 †J. F. Wojta, M. S., (*Ext. Assoc.*) *Agr. Ext. Courses.*  
 ††O. R. Zeasman, B. S., *Asst. in Soils.*

## WYOMING.

College of Agriculture and the Agricultural Experiment Station of the University of Wyoming, Laramie.

\*College faculty. †Station staff. ‡Extension staff.

- \*C. A. Duniway, LL. D., Ph. D., *President of University. Acting Dir. of Sta.*  
 \*†H. G. Knight,<sup>1</sup> A. M., *Dean Coll. of Agr. Dir. of Sta. Agr. Chem. (\*)*  
 †A. E. Bowman, B. S., *Dir. Ext. Work. Agr.*  
 †O. A. Beath, M. A., *Asst. Research Chem.*  
 \*A. E. Bellis, M. S., *Phys.*  
 †R. S. Besse, B. S., *State Leader of County Agts.*  
 †F. S. Burrage, B. A., *Sec.*  
 †E. F. Burton, B. S., *Dairy Dem. (Coop. U. S. D. A.).*  
 \*†A. D. Faville, B. S., *An. Husb.*

<sup>1</sup> On leave.

## WYOMING—Continued.

- |  |  |
|--|--|
| <p>*†J. C. Fitterer, C. E., <i>Irrig. Engin.</i><br/>         *J. F. Groves, Ph. D., (<i>Asst.</i>) <i>Biol.</i><br/>         *Grace R. Hebard, Ph. D., <i>Libr.</i><br/>         †F. E. Hepner, Ph. G., M. S., <i>Research Chem.</i><br/>         *†J. A. Hill, B. S., <i>Textile Indus.; Wool Specialist.</i><br/>         †I. L. Hobson, B. S., <i>State Leader Boys' and Girls' Clubs.</i><br/>         *†J. I. Kirkpatrick, D. V. M., <i>Vet. Sci.; An. Path.</i><br/>         *Emma H. Knight, A. B., (<i>Asst.</i>) <i>Home Econ.</i></p> | <p>†Henrietta Kolshorn, <i>Home Econ. Dem.</i><br/>         *Grace Lantz, <i>Instr. Home Econ.</i><br/>         *†S. K. Loy, Ph. D., <i>Chem.</i><br/>         *†J. E. McWilliams,<sup>1</sup> B. S., <i>An. Husb.</i><br/>         †P. T. Meyers, B. S. A., <i>Asst. Agron.</i><br/>         *†Aven Nelson, Ph. D., <i>Bot.; Bot., Hort.</i><br/>         *†T. S. Parsons, M. S., <i>Agron.</i><br/>         *†O. L. Prien,<sup>1</sup> M. D. V., B. S., <i>Vet. Sci.</i><br/>         *†J. W. Scott, Ph. D., <i>Zool.; Research Parasitol.</i><br/>         *†K. T. Steik, A. M., (<i>Assoc.</i>) <i>Chem.; Engin. Chem.</i><br/>         *Emeline S. Whitcomb, B. S., <i>Home Econ.</i></p> |
|--|--|

<sup>1</sup> On leave.

## OFFICERS OF THE ASSOCIATION OF AMERICAN AGRICULTURAL COLLEGES AND EXPERIMENT STATIONS.

---

*President.*—C. E. THORNE, of Ohio.

*Vice Presidents.*—W. M. RIGGS, of South Carolina; R. J. ALEY, of Maine; J. M. HAMILTON, of Montana; E. A. BURNETT, of Nebraska; and R. W. THATCHER, of Minnesota.

*Secretary-Treasurer.*—J. L. HILLS, of Vermont.

*Bibliographer.*—A. C. TRUE, of Washington, D. C.

*Executive Committee.*—W. O. THOMPSON, of Ohio, chairman; H. J. WATERS, of Kansas; BROWN AYRES, of Tennessee; W. H. JORDAN, of New York; and H. L. RUSSELL, of Wisconsin.

*Sections.*—Section on College Work and Administration: A. R. HILL, of Missouri, chairman; C. A. LORY, of Colorado, secretary. Committee on Program: The CHAIRMAN and SECRETARY.

Section on Experiment Station Work: B. W. KILGORE, of North Carolina, chairman; R. S. SHAW, of Michigan, secretary; W. H. BEAL, of Washington, D. C., recording secretary. Committee on Program: The CHAIRMAN, the SECRETARY, and the RECORDING SECRETARY.

Section on Extension Work: K. L. HATCH, of Wisconsin, chairman; J. H. MILLER, of Arkansas, secretary; BRADFORD KNAPP, of Washington, D. C., recording secretary. Committee on Program: The CHAIRMAN, the SECRETARY, and the RECORDING SECRETARY.

*Standing committees.*—Committee on College Organization and Policy: For three years, K. L. BUTTERFIELD, of Massachusetts, chairman, and C. A. DUNIWAY, of Wyoming; for two years, SAMUEL AVERY, of Nebraska, and W. M. RIGGS, of South Carolina; for one year, R. A. PEARSON, of Iowa, and A. R. HILL, of Missouri.

Committee on Experiment Station Organization and Policy: For three years, B. W. KILGORE, of North Carolina, and E. W. ALLEN, of Washington, D. C.; for two years, EUGENE DAVENPORT, of Illinois, chairman, and C. D. WOODS, of Maine; for one year, F. B. LINFIELD, of Montana, and C. E. THORNE, of Ohio.

Committee on Extension Organization and Policy: For three years, ALVA AGEE, of New Jersey, and C. W. PUGSLEY, of Nebraska, chairman; for two years, W. D. HURD, of Massachusetts, and H. L. RUSSELL, of Wisconsin; for one year, G. I. CHRISTIE, of Indiana, and W. R. DODSON, of Louisiana.

Committee on Instruction in Agriculture: For three years, J. F. DUGGAR, of Alabama, and A. V. STORM, of Minnesota; for two years, A. C. TRUE, of Washington, D. C., chairman, and T. F. HUNT, of California; for one year, H. J. WATERS, of Kansas, and A. C. MONAHAN, of Washington, D. C.

Committee on Graduate Study: For three years, W. O. THOMPSON, of Ohio, and BROWN AYRES, of Tennessee; for two years, H. P. ARMSBY, of Pennsylvania, chairman, and HOWARD EDWARDS, of Rhode Island; for one year, F. B. MUMFORD, of Missouri, and H. J. WEBBER, of California.

---

## JOINT COMMITTEES OF THE ASSOCIATION AND THE U. S. DEPARTMENT OF AGRICULTURE.

---

Committee on Relations: The COMMITTEE ON STATES RELATIONS of the U. S. Department of Agriculture, and the EXECUTIVE COMMITTEE of the Association.

Committee on Projects: W. A. TAYLOR, J. R. MOHLER, and MILTON WHITNEY, of the U. S. Department of Agriculture; W. R. DODSON, of Louisiana; J. G. LIPMAN, of New Jersey; and F. B. MUMFORD, of Missouri.

Editorial Committee, Journal of Agricultural Research: K. F. KELLERMAN, E. W. ALLEN, and C. L. MARLATT, of the U. S. Department of Agriculture; E. M. FREEMAN, of Minnesota; RAYMOND PEARL, of Maine; and H. P. ARMSBY, of Pennsylvania.



## INDEX OF NAMES.

- |                         |                                    |                                 |
|-------------------------|------------------------------------|---------------------------------|
| Aase, H. C., 95.        | Allen, A. A., 77.                  | Anderson, J. P., 31, 44.        |
| Abbe, C., 6.            | Allen, B. F., 73.                  | Anderson, J. T., 43.            |
| Abbey, M. J., 96.       | Allen, E., 84.                     | Anderson, O. G., 55.            |
| Abbott, J. B., 75.      | Allen, E. M., 82.                  | Anderson, O. H., 55.            |
| Abbott, J. S., 18.      | Allen, E. R., 83.                  | Anderson, P. J., 66.            |
| Abbott, W. S., 24.      | Allen, E. W., 30, 39, 100.         | Anderson, R. J., 80.            |
| Ackerman, A. J., 24.    | Allen, F. W., 95.                  | Anderson, W. E., 74.            |
| Ackert, J. E., 59.      | Allen, H. E., 55.                  | Anderson, W. S., 62.            |
| Acree, S. F., 12.       | Allen H. L., 66.                   | Anderton, B. A., 34.            |
| Adair, D., 46.          | Allen, H. W., 26.                  | Andrew, R. A., 86.              |
| Adams, B., 77.          | Allen, L. J., 8.                   | Andrew, J. P., 32.              |
| Adams, C. H., 13.       | Allen, P. W., 53.                  | Andrews, E. L., 96.             |
| Adams, C. L., 97.       | Allen, R. M., 22, 62.              | Andrews, F., 29.                |
| Adams, E. L., 15.       | Allen, R. S., 65.                  | Andrews, J. B., 53.             |
| Adams, F., 34, 46.      | Allen, R. T., 23.                  | Anspen, B. W., 65.              |
| Adams, G. E., 88.       | Allen, R. W. (Kans.), 59.          | Anthony, E. L., 86.             |
| Adams, J. B., 10.       | Allen, R. W. (Oreg.), 85.          | Anthony, R. D., 80.             |
| Adams, J. F., 86.       | Allen, T. W., 33.                  | Anthony, S., 15.                |
| Adams, J. W., 48.       | Allison, H. O., 71.                | App, F., 76.                    |
| Adams, M. (Iowa), 57.   | Allison, I. D., 53.                | Appleman, C. O., 65.            |
| Adams, M. (Nev.), 75.   | Allison, I. M. K., 48.             | Arbenz, H. L., 33.              |
| Adams, R. L., 46.       | Allison, J. H., 68.                | Arey, J. A., 8.                 |
| Adams, T. C., 37.       | Allison, J. H., jr., 57.           | Argo, G. R., 38.                |
| Adler, S., 43.          | Allison, L. E., 55.                | Armington, J. H., 7.            |
| Agee, A., 76, 77, 100.  | Allyn, O. M., 53.                  | Armsby, H. P., 39, 86, 87, 100. |
| Agee, H. P., 52.        | Alps, H. F., 7.                    | Armstrong, B. K., 50.           |
| Agee, J. H., 23.        | Alsberg, C. L., 18.                | Armstrong, V. B., 97.           |
| Agelasto, A. M., 38.    | Althouse, R. C., 39.               | Arnett, C. N., 73.              |
| Agnew, M. A., 43.       | Alvord, E. D., 95.                 | Arnett, L. D., 96.              |
| Ahearn, M. F., 59.      | Alway, F. J., 68.                  | Arnold, J. A., 3, 28.           |
| Ahrens, B. A., 84.      | Ambrose, A. S., 75.                | Arnold, J. H., 4.               |
| Aicher, L. C., 15, 52.  | Amery, E. L., 97.                  | Arny, A. C., 68.                |
| Aiken, W. L., 94.       | Ames, C. T., 70.                   | Arthur, C. M., 86.              |
| Ainslie, C. N., 24.     | Ames, F. E., 13.                   | Arthur, J. C., 55.              |
| Ainslie, G. G., 24.     | Ames, J. W., 83.                   | Arthur, M., 45.                 |
| Ainsworth, T. L., 33.   | Anders, C. B., 63.                 | Arzberger, E. G., 16.           |
| Aitkenhead, W., 55.     | Anderson, A. C., 67.               | Ashby, R. C., 68.               |
| Albert, A. R., 97.      | Anderson, A. E., 74.               | Ashby, W., 34.                  |
| Albin, H. C., 21.       | Anderson, A. P., 33.               | Ashe, W. W., 12.                |
| Albright, A. R., 19.    | Anderson, B. G., 93.               | Ashley, A. M., 5.               |
| Alciatore, H. F., 7.    | Anderson, C. R., 86.               | Ashley, R. H., 64.              |
| Alcock, J. R., 66.      | Anderson, C. S., 48.               | Atherton, M., 92.               |
| Alder, B., 92.          | Anderson, E., 66.                  | Atkeson, T. C., 96.             |
| Alderman, E. S., 33.    | Anderson, E. G., 77.               | Atkins, R. C., 44.              |
| Alderman, W. H., 96.    | Anderson, E. O., 86.               | Atkinson, A., 73.               |
| Aldrich, J. M., 24, 55. | Anderson, F. E., 45.               | Atkinson, C. E., 39.            |
| Alexander, A. S., 97.   | Anderson, F. T., 19.               | Atkinson, T. W., 63.            |
| Alexander, C. P., 77.   | Anderson, G. F., 93.               | Atwater, H. W., 32.             |
| Alexander, H. C., 64.   | Anderson, G. G., 10.               | Atwood, H., 96.                 |
| Aley, R. J., 64, 100.   | Anderson, G. H. (Nebr.), 74.       | Atwood, W. M., 85.              |
| Alford, G. H., 65.      | Anderson, G. H. (U. S. D. A.), 38. | Aubry, V. G., 76, 77.           |
| Alford, S. W., 74.      | Anderson, G. M., 88.               | Auchter, E. C., 96.             |
| Allard, H. A., 15.      | Anderson, J. E., 90.               | Augustus, E. K., 53.            |
| Allee, W. G., 59.       |                                    |                                 |

- Aull, W. B., 88.  
 Aumer, J. P., 53.  
 Aune, B., 17.  
 Aust, F. A., 97.  
 Averill, A. W., 64.  
 Averill, E. F., 26.  
 Averill, G., 59.  
 Averitt, S. D., 62.  
 Avery, S., 74, 100.  
 Ayers, G. D., 52.  
 Ayers, S. H., 5.  
 Ayres, B., 90, 100.  
 Ayres, W. E., 77.  
  
 Babb, J. G., 71.  
 Babcock, D. C., 83.  
 Babcock, E. B., 46.  
 Babcock, F. R., 15.  
 Babcock, H. E., 78.  
 Babcock, S. M., 97.  
 Bachmann, F. M., 97.  
 Bachtell, M. A., 82.  
 Back, E. A., 25.  
 Backus, L. S., 71.  
 Bacon, C. W., 15.  
 Baer, A. A., 74.  
 Baer, A. C., 97.  
 Bahnsen, P. F., 43.  
 Bailey, C. H., 68.  
 Bailey, D. E., 57.  
 Bailey, E. M., 49.  
 Bailey, E. W., 53.  
 Bailey, H. H., 28.  
 Bailey, H. S., 18.  
 Bailey, I. M., 32.  
 Bailey, L. E., 46.  
 Bailey, L. H., 21.  
 Bailey, L. P., 82.  
 Bailey, N. A., 81.  
 Bailey, R. V., 35.  
 Bailey, V., 27.  
 Bain, J. B., 8.  
 Bain, S. M., 90.  
 Baird, A. F., 59.  
 Baird, H. S., 46.  
 Baker, A. C., 24.  
 Baker, C. A., 48.  
 Baker, E. L., 93.  
 Baker, F. R., 80.  
 Baker, G. A., 64.  
 Baker, G. J., 68.  
 Baker, H. J., 49.  
 Baker, M. B., 68.  
 Baker, M. S., 45.  
 Baker, O. E., 4.  
 Baker, P. S., 86.  
 Baker, W. H., 71.  
 Bakke, A. L., 57.  
 Balcom, R. W., 19.  
 Baldinger, H. E., 66.  
 Baldwin, M., 23.  
 Baldwin, R. J., 67.  
 Balis, W. H., 63.  
 Ball, A. A., 52.  
 Ball, C. D., 67.  
 Ball, C. R., 15.  
 Ball, E. D., 92.  
  
 Ball, J. S., 4.  
 Ball, J. W., 33.  
 Ball, O. M., 91.  
 Ballard, C. M., 10.  
 Ballard, W. R., 65.  
 Ballard, W. S., 14.  
 Ballinger, F., 73.  
 Ballou, F. H., 83.  
 Balmer, F. E., 68.  
 Bancroft, R. L., 57.  
 Bancroft, W. F., 27.  
 Bane, J. L., 95.  
 Banks, N., 26.  
 Barber, E. H., 33.  
 Barber, E. R., 24.  
 Barber, G. W., 24.  
 Barber, H. S., 26.  
 Barber, H. W., 31.  
 Barber, L. B., 31, 52.  
 Bardenwerper, K., 75.  
 Barghausen, J. F., 38.  
 Barker, E. E., 78.  
 Barker, H. C., 8, 57.  
 Barker, H. S., 62.  
 Barker, J. F., 80.  
 Barker, P. B., 71.  
 Barlow, J., 88.  
 Barlow, J. T., 77.  
 Barmeier, H., 28.  
 Barnard, A., 48.  
 Barnard, H. E., 22.  
 Barnes, B. W., 81.  
 Barnes, G. W., 45.  
 Barnes, M. F., 81.  
 Barnes, W. C., 11.  
 Barnett, C. R., 29.  
 Barnett, E., 70.  
 Barnett, N. M., 96.  
 Barnett, R. J., 95.  
 Barnette, W. A., 88.  
 Barney, W. B., 22.  
 Barovetto, G., 46.  
 Barr, W. A., 8, 85.  
 Barre, H. W., 88.  
 Barrett, E. L., 24.  
 Barrett, L. A., 13.  
 Barrett, T. J., 46.  
 Barrilleaux, C. J., 63.  
 Barron, J. H., 78.  
 Barron, W. E., 7.  
 Barrows, H. H., 34.  
 Barrows, W. B. (Mich.), 67.  
 Barrows, W. B. (U. S. D. A.), 12.  
 Barrows, W. M., 82.  
 Barrus, M. F., 78.  
 Barss, A. F., 85.  
 Barss, H. P., 85.  
 Bartholomew, C. E., 57.  
 Bartholomew, R., 60.  
 Bartlett, J. M., 64.  
 Bartlett, J. W., 76.  
 Barto, D. O., 53.  
 Bartram, H. E., 93.  
 Bassett, C. E., 35, 39.  
 Bassett, L. B., 68.  
 Baston, G. H., jr., 15.  
  
 Batchelder, C. H., 75.  
 Batchelor, L. D., 46.  
 Bateman, R. E., 26.  
 Bates, E. F., 91.  
 Bates, S. L., 75.  
 Bates, W. E., 46.  
 Batten, E. T., 93.  
 Battiste, M. J., 89.  
 Bauder, H. D., 78.  
 Bauer, F. C., 53.  
 Baughman, W. F., 21.  
 Baxter, O. G., 34.  
 Bayer, C. J., 26.  
 Bayha, A. E., 68.  
 Beach, B. A., 97.  
 Beach, C. L., 49.  
 Beach, D., 64.  
 Beach, F. H., 55.  
 Beach, J. R., 46.  
 Beach, S. A., 57.  
 Beagles, R. L., 18.  
 Beal, A. C., 78.  
 Beal, F. E. L., 26.  
 Beal, J. M., 70.  
 Beal, W. H., 30, 100.  
 Beal, W. J., 67.  
 Beall, F. C., 55.  
 Beals, C. L., 66.  
 Beals, E. A., 6, 7.  
 Bean, R. P., 18.  
 Bean, W. C., 57.  
 Bear, F. E., 96.  
 Beard, R. F., 85.  
 Beath, O. A., 98.  
 Beattie, J. H., 14.  
 Beaumont, A. B., 78.  
 Beavers, J. C., 55.  
 Bechdel, S. I., 86.  
 Bechtel, A. R., 78.  
 Bechtel, J. R., 86.  
 Beck, E., 34.  
 Beck, M. W., 23.  
 Beckenstrater, H., 65.  
 Becker, G. G., 46.  
 Becker, J. A., 97.  
 Beckett, S. H., 34, 46.  
 Beckman, F. W., 57.  
 Beckwith, A. M., 14.  
 Beckwith, T. D., 85.  
 Beebe, L. L., 34.  
 Beegle, F. M., 83.  
 Beeler, M. N., 50.  
 Beeson, M. A., 84.  
 Beinhardt, E. G., 15.  
 Bell, A. T., 63.  
 Bell, B., 71.  
 Bell, F. W., 91.  
 Bell, G. A., 7.  
 Bell, J. D., 48.  
 Bell, W. B., 81.  
 Belling, J., 50.  
 Bellis, A. E., 98.  
 Belomy, A. W., 60.  
 Belz, J. O., 16.  
 Bemis, B. E., 68.  
 Bemis, H. E., 57.  
 Benbrook, E. A., 84.

- Bender, W. H., 68.  
 Bengis, R., 21.  
 Bengtson, N. A., 74.  
 Benjamin, E. W., 78.  
 Benkenndorf, G. H., 97.  
 Benner, J. W., 60.  
 Bennett, C. D., 15.  
 Bennett, C. M., 4.  
 Bennett, H. H., 23.  
 Bennett, R. L., 91.  
 Benson, H. B., 44.  
 Benson, J. P., 78.  
 Benson, O. H., 32.  
 Bentley, F. L., 71.  
 Bentley, G. A., 11.  
 Bentley, G. M., 90.  
 Bentley, J., jr., 78.  
 Bentley, M., 57.  
 Bentley, R. B., 48.  
 Bentley, W. D., 84.  
 Bentley, W. H., 97.  
 Benton, A. H., 68.  
 Renton, G. P., 93.  
 Benton, R., 28.  
 Berg, A., 96.  
 Berg, W. U., 9.  
 Berger, E. F., 67.  
 Bergh, O. I., 68.  
 Bergman, H. D., 57.  
 Berry, J. B., 51.  
 Berry, J. T., 68.  
 Besemer, A. M., 78.  
 Besley, F. W., 65.  
 Besley, H. J., 15.  
 Besse, R. S., 98.  
 Bessey, E. A., 67.  
 Bethell, B. O., 91.  
 Betten, C., 78.  
 Betts, H. S., 12.  
 Betts, M. C., 34.  
 Betz, M., 82.  
 Bevier, I., 53.  
 Bewick, T. L., 97.  
 Bexell, J. A., 36.  
 Beyer, A. H., 24.  
 Bias, J. H., 44.  
 Bibbins, A. L., 67.  
 Bibby, I. J., 86.  
 Bidwell, G. L., 20.  
 Biester, A. M., 68.  
 Bigelow, Z. E., 67.  
 Bigford, G. L., 51.  
 Biggar, H. H., 15.  
 Billings, G. A., 4.  
 Billings, H. E., 46.  
 Bilsing, S. W., 91.  
 Binford, E. E., 91.  
 Bingham, S. L., 92.  
 Binnewies, E., 89.  
 Binzel, C. E., 97.  
 Bioletti, F. T., 46.  
 Blackner, V., 20.  
 Bird, H. S., 17.  
 Birdsall, B. W., 60.  
 Birdseye, M., 78.  
 Bisbee, D. B., 21.  
 Bishop, E. C., 57.  
 Bishop, S. C., 78.  
 Bishopp, F. C., 25.  
 Bisset, P., 18.  
 Bitler, R. O., 55.  
 Bittenbender, H. A., 57.  
 Bixby, F. L., 34, 77.  
 Bizzell, J. A., 78.  
 Bizzell, W. B., 91.  
 Black, C. A., 75.  
 Black, H. V., 51.  
 Black, O. F., 15.  
 Blackburn, F. J., 53.  
 Blackmore, B., 78.  
 Blackshear, E. L., 92.  
 Blackwell, J. D., 91.  
 Blair, A. W., 76.  
 Blair, E. C., 80.  
 Blair, F. J., 29.  
 Blair, J. C., 53.  
 Blair, M. J., 68.  
 Blair, R. E., 17.  
 Blair, W. R., 6.  
 Blake, I. D., 85.  
 Blake, M. A., 76, 77.  
 Blakeslee, E. B., 24.  
 Blanchard, F. N., 66.  
 Blanchard, H. L., 95.  
 Blanck, F. C., 18.  
 Blasingame, R. U., 43.  
 Blatherwicks, N. R., 8.  
 Bledsoe, R. P., 60.  
 Blelle, A. M., 82.  
 Blinn, P. K., 48.  
 Bliss, G. S., 7.  
 Bliss, R. K., 57.  
 Blizzard, W. L., 84.  
 Blodgett, F. H., 91.  
 Blodgett, F. M., 78.  
 Blohm, A. F., 82.  
 Bloodgood, D. W., 77.  
 Bloxom, T. T., 28.  
 Bluford, J. H., 81.  
 Blumenthal, P. L., 62.  
 Blundon, B. A., 6.  
 Blystone, M. E., 7.  
 Boardman, W. C., 83.  
 Rock, H. J., 67.  
 Boeger, E. A., 4.  
 Boeing, A., 97.  
 Boerner, E. G., 15.  
 Boettcher, A. B., 28.  
 Boger, H. H., 44.  
 Bogue, R. H., 73.  
 Bohannan, C. D., 62.  
 Boissevain, M. B., 95.  
 Boland, E. N., 66.  
 Bole, S. J., 53.  
 Bolley, H. L., 81.  
 Bolton, R. R., 57.  
 Boltz, G. E., 83.  
 Bomberger, F. B., 65.  
 Bomboy, J. W., 23.  
 Bonardi, J. P., 96.  
 Bonazzi, A., 83.  
 Bone, A. E., 55.  
 Bonnett, R. K., 60.  
 Bonslagel, C. J., 70.  
 Bonsteel, J. A., 23.  
 Boord, C. E., 82.  
 Booth, A. B., 57.  
 Borden, A. D., 24.  
 Borden, N. H., 20.  
 Boring, A. M., 64.  
 Borland, E. A., 86.  
 Boss, A., 68.  
 Bothell, F. H., 8.  
 Botto, B. M., 35.  
 Bouquet, A. G. B., 85.  
 Bourne, A. I., 66.  
 Boutelle, F. C., 69.  
 Bouyoucos, G. J., 67.  
 Böving, A. G., 25.  
 Bowen, A. F., 80.  
 Bowen, J. T., 8.  
 Bowen, J. W., 57.  
 Bower, H. J., 60.  
 Bower, L. J., 24.  
 Bowie, E. H., 6.  
 Bowles, P. S., 71.  
 Bowman, A. E., 98.  
 Bowmacker, J. A., 82.  
 Boyack, B., 48.  
 Boyce, J. S., 14.  
 Boyd, F. E., 43.  
 Boyd, T. D., 63.  
 Eoyd, W. E., 30.  
 Boyd, W. L., 69.  
 Boyden, B. L., 25.  
 Boykin, L. E., 33.  
 Boyle, C. W., 3.  
 Boyle, J. G., 55.  
 Boyle, M., 19.  
 Bracken, A. F., 92.  
 Brackett, E. E., 74.  
 Brackett, R. N., 88.  
 Bradford, H. E., 74.  
 Bradlee, T., 93.  
 Bradley, C. A., 50.  
 Bradley, J. C., 78.  
 Bradley, J. W., 26.  
 Bragg, L. C., 48.  
 Bragg, T., 43.  
 Brainard, A. S., 33.  
 Braman, W. W., 87.  
 Branch, F. H., 4.  
 Branch, G. V., 36.  
 Brand, C. J., 16, 35, 38.  
 Brandenburg, F. H., 6, 7.  
 Brandes, E. W., 31, 87.  
 Brandon, L. B., 88.  
 Brandt, I. L., 57.  
 Brandt, P. M., 71.  
 Branham, R. H., 73.  
 Brann, J. W., 97.  
 Brannon, J. M., 78.  
 Brannon, M. A., 52.  
 Branson, E. B., 71.  
 Branson, E. C., 38.  
 Brashear, C. E., 57.  
 Braun, H., 78.  
 Brauns, D. H., 19.  
 Brawley, S., 44.  
 Bray, C. I., 48.  
 Bray, G. E., 60.

- Breazeale, J. F., 21.  
 Breed, R. S., 80.  
 Brehme, H. H., 77.  
 Breithaupt, L. R., 15, 85.  
 Brentzel, W. E., 71.  
 Brett, G. W., 10.  
 Breuckner, A. L., 62.  
 Brew, J. D., 80.  
 Brewer, F. W., 8.  
 Brewster, C. M., 95.  
 Brewster, J. F., 18.  
 Bridgeforth, G. R., 44.  
 Brierly, W. G., 69.  
 Briggs, L. J., 16.  
 Biggs, R. R., 7.  
 Brinkley, E. H., 65.  
 Brinkley, L. L., 80.  
 Brinton, C. S., 21.  
 Brinton, P. H. M., 45.  
 Briscoe, C. F., 70.  
 Briscoe, J. M., 64.  
 Britton, W. E., 49.  
 Brock, W. C., 53.  
 Brodie, D. A., 4.  
 Bromly, J. H., 78.  
 Bronson, D. D., 10.  
 Bronson, W. H., 66.  
 Brooks, C., 14.  
 Brooks, F. E., 24.  
 Brooks, F. M., 53.  
 Brooks, H. B., 85.  
 Brooks, T. J., 70.  
 Brooks, W. F., 33.  
 Brooks, W. P., 66.  
 Broome, F. H., 90.  
 Groomell, A. W., 21.  
 Brossard, E. B., 92.  
 Broughten, M. P., 60.  
 Broughton, L. B., 65.  
 Brown, A. M., 67.  
 Brown, B. E., 14.  
 Brown, B. S., 64.  
 Brown, C. (Minn.), 69.  
 Brown, C. (Tenn.), 90.  
 Brown, C. B., 16.  
 Brown, C. E., 69.  
 Brown, Ch. E., 69.  
 Brown, C. W., 67.  
 Brown, D. E., 15.  
 Brown, E., 16.  
 Brown, E. A., 32.  
 Brown, E. B., 15.  
 Brown, F. H., 82.  
 Brown, F. L., 60.  
 Brown, F. W., 23.  
 Brown, G. A., 67.  
 Brown, G. L., 89.  
 Brown, H., 38.  
 Brown, H. B., 70.  
 Brown, H. D., 53.  
 Brown, H. H., 19.  
 Brown, J. G., 45.  
 Brown, L. A., 62.  
 Brown, L. G., 78.  
 Brown, L. L., 65.  
 Brown, M., 90.  
 Brown, M-E., 74.  
 Brown, N. A., 13.  
 Brown, P. E., 57.  
 Brown, R. W., 57.  
 Brown, W. G., 71.  
 Brown, W. S., 85.  
 Browne, T. E., 80.  
 Brubaker, H. W., 60.  
 Bruce, D., 46.  
 Bruce, E. S., 10.  
 Bruce, O. C., 65.  
 Brumley, O. V., 82.  
 Brundage, A. J., 49.  
 Bruner, L., 74.  
 Brunner, J., 25.  
 Brunson, A. M., 53.  
 Brush, W. D., 12.  
 Bryan, E. L., 52.  
 Bryan, H., 23.  
 Bryan, M. K., 13.  
 Bryan, W. A., 52.  
 Bryan, W. E., 45.  
 Bryant, E. S., 11.  
 Bryant, T. R., 62.  
 Bryant, V. C., 46.  
 Bryant, W. T., 91.  
 Buchanan, J., 57.  
 Buchanan, J. H., 57.  
 Buchanan, R. E., 57.  
 Buchanan, W. A., 57.  
 Buchanan, W. S., 44.  
 Buchbinder, H. E., 19.  
 Buck, C. J., 13.  
 Buck, J. E., 43.  
 Buck, J. L. B., 94.  
 Buck, J. M., 9.  
 Buckley, J. P., jr., 66.  
 Buckley, J. S., 9.  
 Buckley, S. S., 65.  
 Buckman, H. O., 78.  
 Buckman, R. M., 62.  
 Buckner, G. D., 62.  
 Bugby, M. O., 83.  
 Bulkley, G. S., 86.  
 Bull, A. M., 69.  
 Bull, C. P., 69.  
 Bull, M. L., 69.  
 Bull, S., 53.  
 Bunch, M., 53.  
 Bundy, C. E., 83.  
 Bunnell, Mrs. D. L., 46.  
 Bunnemeyer, B., 7.  
 Bunzel, H. H., 15.  
 Burd, J. S., 46.  
 Burdick, H., 88.  
 Burdick, R. T., 93.  
 Burge, C. A., 46.  
 Burgess, A. F., 25.  
 Burgess, C. H., 67.  
 Burgess, J. M., 88.  
 Burgess, P. S., 52.  
 Burghart, L. M., 64.  
 Burke, E., 73.  
 Purke, H. E., 25.  
 Burke, L. B., 91.  
 Burke, R. T. A., 23.  
 Burleigh, W. F., 88.  
 Burleson, D. J., 38, 43.  
 Burling, H. A., 57.  
 Burlingham, C. L., 8.  
 Burlison, W. L., 53.  
 Burmeister, C. A., 36.  
 Burn, R. R., 23.  
 Burnett, A. C., 90.  
 Burnett, E. A., 74, 100.  
 Burnett, J. E., 67.  
 Burnett, L. B., 19.  
 Burnett, L. C., 15, 57.  
 Burns, C. A., 84.  
 Burns, F., 10.  
 Burns, G. P., 93.  
 Burns, J. C., 91.  
 Burns, W. H., 17.  
 Burr, J. M., 64.  
 Burr, W., 60.  
 Burr, W. W., 16.  
 Burrage, F. S., 98.  
 Burrell, B. H., 33.  
 Burrill, A. C., 97.  
 Burritt, M. C., 78.  
 Burrows, T. K., 28.  
 Burson, W. M., 51.  
 Burt, F. A., 67.  
 Burt, G. J., 15.  
 Burt, J. H., 60.  
 Burton, E. F., 8, 98.  
 Burton, M. G., 60.  
 Busck, A., 26.  
 Bush, G. W., 82.  
 Bush, H. M., 69.  
 Bushey, A. L., 55.  
 Bushnell, L. D., 60.  
 Bushnell, T. M., 23.  
 Russ, W. J., 83.  
 Butler, H. P., 89.  
 Butler, O. M., 13.  
 Butler, O. R., 75.  
 Butt, N. I., 92.  
 Butterfield, E. C., 18.  
 Butterfield, K. L., 66, 100.  
 Buxton, B., 60.  
 Byall, S., 63.  
 Byars, L. P., 14.  
 Byrnes, E. M., 17.  
 Cadwallader, J. M., 63.  
 Cady, B. J., 46.  
 Cady, Le R., 69.  
 Cady, W. B., 88.  
 Caffey, F. G., 3.  
 Caffrey, D. J., 24.  
 Caffe, S., 84.  
 Cain, G. D., 63.  
 Caine, G. B., 92.  
 Caine, J. T., III, 92.  
 Cairy, F. W., 57.  
 Cajori, F. A., 16.  
 Caldwell, A. B., 89.  
 Caldwell, D. W., 88.  
 Caldwell, G., 57.  
 Caldwell, G. L., 45.  
 Caldwell, J. S., 95.  
 Caldwell, L., 60.  
 Caldwell, Mrs. R. C., 73.  
 Caldwell, R. E., 55.



- Calhoun, F. H. H., 88.  
 Calkins, K. C., 97.  
 Call, H., 82.  
 Call, L. E., 60.  
 Calland, J. W., 83.  
 Calloway, C. J., 44.  
 Calvert, E. B., 5.  
 Calvert, S., 71.  
 Calvert, T. L., 22.  
 Calvin, J. A., 50.  
 Calvin, J. W., 74.  
 Calvin, P. H., 88.  
 Camburn, O. M., 8, 70.  
 Cameron, H. C., 57.  
 Cammack, F. R., 8.  
 Camp, W. R., 80.  
 Campbell, A. B., 16.  
 Campbell, C. R., 96.  
 Campbell, E. G., 91.  
 Campbell, G. H., 49.  
 Campbell, H. C., 9.  
 Campbell, J., 57.  
 Campbell, J. P., 51.  
 Campbell, J. Phil, 51.  
 Campbell, L. H., 57.  
 Campbell, M., 88.  
 Campbell, R. E., 25.  
 Campbell, T. M., 44.  
 Campbell, W. A., 90.  
 Campbell, W. G., 21.  
 Cance, A. E., 66.  
 Cannon, C. L., 15.  
 Canon, H., 78.  
 Cantwell, G. G., 27.  
 Cantwell, J. W., 84.  
 Cantwell, W. F., 69.  
 Cape, J., 60.  
 Card, L. E., 49.  
 Cardiff, I. D., 95.  
 Cardon, P. V., 14.  
 Cardozo, F. H., 50.  
 Carey, D. H., 46.  
 Carleton, M. A., 15.  
 Carlisle, L. A., 75.  
 Carlson, A. F., 57.  
 Carlyle, W. L., 84.  
 Carmichael, B. E., 84.  
 Carmichael, W. J., 53.  
 Carmody, J. H., 62.  
 Carnes, H. M., 85.  
 Carney, H. E., 77.  
 Carothers, J. N., 23.  
 Carpenter, C. E., 48.  
 Carpenter, C. H., 35.  
 Carpenter, C. W., 14.  
 Carpenter, D. C., 67.  
 Carpenter, I. W., 70.  
 Carpenter, J. W., jr., 70.  
 Carr, R. G., 67.  
 Carr, R. H., 55.  
 Carrero, J. O., 31, 87.  
 Carrier, L., 16.  
 Carrington, A. C., 92.  
 Carroll, C. C., 7.  
 Carroll, C. G., 45.  
 Carroll, W. E., 92.  
 Carroll, W. P., 15.  
 Carruth, F. E., 80.  
 Carson, W. J., 76.  
 Carter, B., 91.  
 Carter, Mrs. C. D., 44.  
 Carter, D. M., 28.  
 Carter, E. E., 11.  
 Carter, E. T., 92.  
 Carter, L. M., 51.  
 Carter, W. T., jr., 23.  
 Carver, G. W., 44.  
 Cary, A., 11.  
 Cary, C. A., 43.  
 Case, H. C. M., 53.  
 Cash, E. K., 13.  
 Cash, L. C., 13.  
 Cassel, C. E., 60.  
 Cassidy, H., 91.  
 Castleberry, A., 85.  
 Cates, H. R., 16.  
 Cates, J. S., 4.  
 Cathcart, C. S., 22, 77.  
 Catlin, C. N., 45.  
 Cattron, E. S., 28.  
 Caudell, A. N., 26.  
 Cauthen, E. F., 43.  
 Cavanaugh, G. W., 78.  
 Cecil, G. H., 13.  
 Center, O. D., 52.  
 Chace, E. M., 21.  
 Chaffee, R. R., 86.  
 Chamberlain, F. W., 67.  
 Chamberlain, J. S., 66.  
 Chamberlin, T. R., 24.  
 Chambers, C. O., 84.  
 Chambers, W. E., 16, 38.  
 Chambers, W. H., 53.  
 Chambliss, C. E., 15.  
 Champlain, A. B., 25.  
 Champlin, M., 89.  
 Chandler, A. C., 85.  
 Chandler, B. A., 93.  
 Chandler, E., 84.  
 Chandler, W. H., 78.  
 Chandler, W. L., 78.  
 Chapin, R. M., 8.  
 Chaplin, E. L., 8.  
 Chapman, C. W., 67.  
 Chapman, G. H., 66.  
 Chapman, J. E., 64.  
 Chapman, J. W., 26.  
 Chapman, N. E., 69.  
 Chappel, G. M., 7.  
 Chappel, V. D., 57.  
 Charles, V. K., 13.  
 Charlton, I. D., 95.  
 Chase, A., 16.  
 Chase, F. J., 73.  
 Chase, L. W., 74.  
 Chassaignac, E. T., 38.  
 Checkley, J. H., 53.  
 Cheesman, W. H., 26.  
 Cheney, L., 85.  
 Chenoweth, W. W., 66.  
 Chernoff, L. H., 18.  
 Chesnut, V. K., 19.  
 Cheyney, E. G., 69.  
 Chidester, F. E., 76.  
 Chilcott, E. C., 16.  
 Chilcott, E. F., 16.  
 Childers, L. F., 72.  
 Childs, O. W., 33.  
 Childs, R. R., 15, 51.  
 Chinn, A., 62.  
 Chipman, M. E., 52.  
 Chittenden, A. K., 67.  
 Chittenden, F. H., 25.  
 Chrisman, W. G., 94.  
 Christburg, Mrs. D. E., 73.  
 Christensen, F. W., 77.  
 Christian, R. V., 60.  
 Christiansen, H. A., 92.  
 Christie, G. I., 55, 100.  
 Christopher, C., 18.  
 Christy, E. S., 94.  
 Chryslor, M. A., 64.  
 Chubbuck, L., 4.  
 Chupp, C., 78.  
 Church, C. G., 21.  
 Church, J. E., jr., 75.  
 Church, L., 4.  
 Church, M. B., 20.  
 Churchill, G. W., 80.  
 Churchill, O. O., 81.  
 Cilley, M., 34.  
 Claassen, P. W., 78.  
 Clapp, E. H., 12.  
 Clapp, S. C., 80.  
 Clark, A. J., 67.  
 Clark, A. L., 76, 77.  
 Clark, A. W., 80.  
 Clark, C. C., 5.  
 Clark, C. E., 80.  
 Clark, C. F., 17.  
 Clark, C. H., 15.  
 Clark, D. B., 55.  
 Clark, D. S., 64.  
 Clark, E. D., 21.  
 Clark, H. H., 4.  
 Clark, I. D., 57.  
 Clark, J. A., 15.  
 Clark, J. S., 64.  
 Clark, L. C., 52.  
 Clark, L. D., 46.  
 Clark, O. D., 66.  
 Clark, O. M., 88.  
 Clark, R. R., 94.  
 Clark, S. C., 32.  
 Clark, S. P., 60.  
 Clark, V. E., 57.  
 Clark, W. D., 66.  
 Clark, W. M., 8.  
 Clark, W. N., 67.  
 Clarke, W. F., 51.  
 Clarke, W. T., 46.  
 Clausen, R. E., 46.  
 Clawson, A. B., 9.  
 Clayton, E. P., 70.  
 Clayton, H. G., 50.  
 Cleary, F. J. P., 28.  
 Cleasby, E. A., 28.  
 Clem, R. R., 57.  
 Clemens, L. I., 67.  
 Clemens, W. A., 64.  
 Clement, C. E., 8.

- Clement, G. E., 12, 26.  
**Clemmer, C. W., 86.**  
 Clemmer, P. W., 8.  
 Cleveland, C. R., 75.  
 Clevenger, C. B., 53.  
 Clevenger, W. L., 82.  
 Cleworth, E. B., 69.  
 Cline, I. M., 6, 7.  
 Cline, J., 72.  
 Cline, L. E., 18.  
 Clink, C. H., 55.  
 Clinton, G. P., 49.  
 Clinton, L. A., 32.  
 Close, C. P., 17.  
 Clothier, R. W., 4.  
 Clutter, J. A., 91.  
 Coad, B. R., 24.  
 Coates, C. E., 63.  
 Cobb, C. A., 70.  
 Cobb, G. R., 88.  
 Cobb, N. A., 15.  
 Cobb, W. B., 23.  
 Cobleigh, W. M., 73.  
 Coburn, C. E., 38.  
 Cochel, W. A., 60.  
 Cochran, D. C., 87.  
 Cocke, R. P., 94.  
 Coe, H. S., 16.  
 Coffey, G. N., 53.  
 Coffey, J. S., 82.  
 Coffey, W. C., 53.  
 Coffin, R. G., 43.  
 Coffin, R. L., 66.  
 Coffman, E. E., 84.  
 Coffman, J. H., 97.  
 Coggins, C. L., 88.  
 Cogswell, W. F., 22.  
 Coit, J. E., 46.  
 Colburn, F. E., 57.  
 Colby, A. S., 53.  
 Colcord, M., 23.  
 Cole, A. D., 82.  
 Cole, C. G., 57.  
 Cole, F. R., 25.  
 Cole, G. M., 16.  
 Cole, H. S., 7.  
 Cole, J. S., 16.  
 Cole, K. C., 65.  
 Cole, L. J., 97.  
 Cole, V. E., 49.  
 Coleman, G. A., 46.  
 Coleman, J. G., 58.  
 Coleman, T. A., 15.  
 Collett, R. W., 80.  
 Collins, C. W., 26.  
 Collins, G. N., 14.  
 Collins, J. F., 14.  
 Collins, J. H., 35.  
 Collins, W. D., 19.  
 Collison, R. C., 80.  
 Collison, S. E., 50.  
 Colver, C. W., 52.  
 Colwell, R. H., 96.  
 Combs, S., 8, 80.  
 Combs, W. B., 72.  
 Comfort, W. E., 35.  
 Comstock, A. B., 78.  
 Comstock, L., 66.  
 Condit, I. J., 46.  
 Condra, G. E., 74.  
 Cone, V. M., 34, 48.  
 Conger, A. C., 67.  
 Conlin, H. J., 78.  
 Conn, H. J., 80.  
 Connaway, J. W., 72.  
 Conner, A. B., 91.  
 Conner, L. E., 65.  
 Conner, S. D., 55.  
 Connor, L. G., 4.  
 Connor, M., 17.  
 Connors, C. H., 77.  
 Conolly, H. M., 17.  
 Conover, C., 18.  
 Conradi, A. F., 88.  
 Conser, H. N., 64.  
 Converse, H. T., 8.  
 Converse, J. E., 90.  
 Conway, T. J., 91.  
 Conway, W. T., 77.  
 Cook, F. C., 20.  
 Cook, I. S., Jr., 96.  
 Cook, L. B., 8.  
 Cook, M. T., 76.  
 Cook, O. F., 14.  
 Cook, R. B., 92.  
 Cooke, E. B., 64.  
 Cooke, G. B., 50.  
 Cooke, W. W., 27.  
 Cooleage, L. H., 67.  
 Cooley, A. C., 77.  
 Cooley, F. S., 73.  
 Cooley, J. S., 14.  
 Cooley, R. A., 73.  
 Cooley, R. B., 88.  
 Coons, G. H., 67.  
 Coons, S., 66.  
 Cooper, B., 92.  
 Cooper, E. H., 80.  
 Cooper, F. F., 76.  
 Cooper, H. P., 86.  
 Cooper, J. J. W., 38.  
 Cooper, J. R., 74.  
 Cooper, M. O., 4.  
 Cooper, M. R., 4.  
 Cooper, S. W., 34.  
 Cooper, T. P., 81.  
 Coopersmith, S., 19.  
 Cooter, J. E., 85.  
 Coover, W. F., 57.  
 Cope, R. P., 95.  
 Copson, G. V., 85.  
 Corbett, L. C., 17, 18.  
 Corbett, L. L., 4.  
 Corbett, L. S., 64.  
 Corbin, L. F., 74.  
 Corbould, M. K., 84.  
 Cordley, A. B., 85.  
 Corneliuson, T., 8.  
 Cornman, E., 28.  
 Cort, J. C., 57.  
 Cory, E. N., 65.  
 Cory, H. V., 76.  
 Cory, V. L., 91.  
 Coryell, J., 93.  
 Costello, M., 49.  
 Costelloe, M. F. P., 57.  
 Cotton, J. S., 4.  
 Cotton, W. E., 10.  
 Coughlin, J. W., 94.  
 Coulter, A., 60.  
 Coulter, G., 95.  
 Coulter, J. L., 96.  
 Coulter, S., 55.  
 Courtney, O. K., 91.  
 Cousley, E. T., 49.  
 Coverdale, J. W., 57.  
 Coville, F. V., 16.  
 Cowan, J., 74.  
 Cowart, I. E., 91.  
 Cowell, A. W., 86.  
 Cowen, T. N., 44.  
 Cowgill, H., 85.  
 Cowgill, H. B., 88.  
 Cowgill, Mrs. T. W., 75.  
 Cowgill, W. N., 76.  
 Cowles, A., 67.  
 Cowles, I. F., 60.  
 Cox, H. J., 6.  
 Cox, H. L., 80.  
 Cox, J. F., 67.  
 Cox, J. H., 15.  
 Cox, J. L., 60.  
 Cox, R. E., 92.  
 Cox, W. P., 13.  
 Crabb, G. A., 51.  
 Crabtree, P. E., 60.  
 Craig, A. H., 95.  
 Craig, H. K., 33.  
 Craig, R. A., 55.  
 Craig, W. T., 15, 78.  
 Craighead, F. C., 25.  
 Cramer, W., jr., 89.  
 Crampton, G. C., 66.  
 Crandall, C. S., 53.  
 Crandall, W. T., 53.  
 Crane, E., 29.  
 Crane, G. B., 82.  
 Crane, H. L., 96.  
 Crane, R. N., 90.  
 Crawford, L. B., 26.  
 Crawford, N. A., 60.  
 Crawley, C. J., 23.  
 Crawley, H., 9.  
 Cray, W. A., 77.  
 Creel, C. W., 24.  
 Creese, M., 65.  
 Creswell, C. F., 35.  
 Creswell, M. E., 31.  
 Crick, J. G., 26.  
 Crider, F. J., 88.  
 Crippen, T. D., 31, 44.  
 Crisler, O. S., 62.  
 Criswell, J. H., 18.  
 Crittenden, R. L., 38.  
 Crocheron, B. H., 46.  
 Crocker, W., 15.  
 Crockett, W. H., 93.  
 Cromer, C. O., 55.  
 Cromwell, R. O., 80.  
 Cron, A. B., 16.  
 Crooks, F. B., 86.

- Crosby, C. R., 78.  
 Crosby, D. J., 78.  
 Crosby, M. A., 4.  
 Cross, C., 44.  
 Cross, L. J., 78.  
 Crossland, W. A., 33.  
 Crossman, S. S., 26.  
 Crouse, R. W., 94.  
 Cruess, W. V., 46.  
 Cruickshank, R. B., 82.  
 Crumb, S. E., 24.  
 Crumbine, S. J., 22.  
 Crumley, J. J., 84.  
 Crutcher, W. H., 50.  
 Cuenot, P. J., 63.  
 Cullen, J. A., 23.  
 Culley, F. H., 57.  
 Culver, J. J., 26.  
 Cummings, M. B., 93.  
 Cunningham, C. C., 60.  
 Cunningham, J. C., 57.  
 Cunningham, O. C., 82.  
 Cunningham, W. S., 45.  
 Currie, J. N., 8.  
 Currie, R. P., 26.  
 Currier, E. L., 73.  
 Currin, R. E., 88.  
 Curry, B. E., 75.  
 Curtice, C., 10.  
 Curtis, A. W., 96.  
 Curtis, E. W., 17.  
 Curtis, H. E., 62.  
 Curtis, M. R., 64.  
 Curtis, O. F., 78.  
 Curtis, R. E., 77.  
 Curtis, R. S., 80.  
 Curtis, R. W., 78.  
 Curtis, W. C., 72.  
 Curtis, W. E., 64.  
 Curtiss, C. F., 57.  
 Cushman, R. A., 24.  
 Cutler, C., 55.  
 Daane, A. N., 84.  
 Dachnowski, A. P., 14.  
 Dacy, A. L., 96.  
 Dadisman, A. J., 4, 96.  
 Dahlberg, A. O., 8.  
 Dahlberg, R. C., 69.  
 Dahm, H. L., 72.  
 Dalley, E. H., 57.  
 Dale, J. K., 17, 19.  
 Dales, J. S., 74.  
 Dalrymple, C. O., 78.  
 Dalrymple, W. H., 63.  
 Dalton, C. F., 22.  
 Damel, J. W., 73.  
 Damon, E. F., 66.  
 Damon, S. C., 88.  
 Dana, S. T., 12.  
 Daniels, A. L., 97.  
 Daniels, A. M., 34.  
 Daniels, H. O., 49.  
 Daniels, L. C., 62.  
 Dann, A. B., 78.  
 Darger, H. C., 8, 57.  
 Darlington, H. T., 67.  
 Darnell, A. L., 91.  
 Darnell, E. M., 44.  
 Darner, R., 81.  
 Darrow, G. M., 17.  
 Darst, W. H., 86.  
 Daudt, H. W., 20.  
 Daugherty, C. M., 29.  
 Davenport, E., 53, 100.  
 Davidson, J., 21.  
 Davidson, J. B., 46.  
 Davidson, W. M., 24.  
 Davies, A. L., 32.  
 Davies, H., 62.  
 Davis, B., 85.  
 Davis, B. J., 8.  
 Davis, B. L., 94.  
 Davis, C. C., 89.  
 Davis, C. E., 92.  
 Davis, C. W., 63.  
 Davis, E. A., 50.  
 Davis, E. G., 78.  
 Davis, F. A., 33.  
 Davis, G. J., 94.  
 Davis, G. L., 49.  
 Davis, H. L., 74.  
 Davis, H. P., 8.  
 Davis, H. S., 50.  
 Davis, I. G., 49.  
 Davis, I. W., 49.  
 Davis, J. E., 46.  
 Davis, J. J., 24, 55.  
 Davis, L. M., 46.  
 Davis, L. V., 23.  
 Davis, M., 60.  
 Davis, Mary E., 44.  
 Davis, Minnie E., 44.  
 Davis, N. J., 75.  
 Davis, R. O. E., 23.  
 Davis, T. W., 70.  
 Davis, V. H., 82.  
 Davis, W. E., 60.  
 Davis, W. P., 75.  
 Davisson, B. S., 84.  
 Davisson, E. R., 74.  
 Dawson, R. W., 74.  
 Day, C. A., 97.  
 Day, J., 63.  
 Day, J. E., 82.  
 Day, L. E., 9.  
 Day, P. C., 5.  
 Dean, A. L., 52.  
 Dean, F. C., 74.  
 Dean, G. A., 60.  
 Dean, H. K., 17.  
 Dean, W. C., 46.  
 Dean, W. S., 38.  
 Dearborn, N., 27.  
 Deardorff, C. E., 72.  
 Dearing, C. T., 17.  
 Deatrck, E. P., 78.  
 DeBaun, R. W., 76.  
 Dechant, H. P., 4.  
 Deemer, R. B., 55.  
 Deeter, E. B., 23.  
 De Gryse, J. J., 25.  
 DeLoach, R. J. H., 51.  
 Delwiche, E. J., 97.  
 Demarest, W. H. S., 76.  
 Dempster, J. M., 90.  
 Demuth, G. S., 25.  
 Denman, W. A., 45.  
 Dennis, S. C., 65.  
 Dennis, S. J., 17.  
 Dennison, H. E., 67.  
 Denniss, F. H., 8, 51.  
 Denny, J. A., 46.  
 Denson, L. A., 7.  
 Denton, M. C., 82.  
 de Regt, A. C., 76.  
 Derrick, B. B., 23.  
 Detjen, L. R., 80.  
 Detlefsen, J. A., 53.  
 Detmers, F., 82.  
 De Turk, E. E., 86.  
 Dewar, E. S., 80.  
 de Werff, H. A., 54.  
 Dewey, G. W., 17.  
 Dewey, L. H., 16.  
 Deysher, E. F., 8.  
 de Zeeuw, R., 67.  
 Dice, L. R., 60.  
 Dick, R., 82.  
 Dickens, A., 60.  
 Dickenson, R. W., 54.  
 Dickerson, I. W., 54.  
 Dickey, J. R. B., 23.  
 Dickson, B. T., 78.  
 Dickson, M. E., 74.  
 Dickson, R. E., 91.  
 Didlake, M. L., 62.  
 Dieffenbach, R., 12.  
 Diesem, H. C., 34.  
 Dietrich, W., 69.  
 Digges, F. D., 94.  
 Dille, F. M., 27.  
 Dillingham, F. T., 52.  
 Dillman, A. C., 16.  
 Dillon, M. N., 48.  
 Dimock, A. C., 93.  
 Dimock, W. W., 57.  
 Dinsmore, S. C., 22.  
 Dinwoodie, J. T. E., 69.  
 Dirstine, P. H., 95.  
 Ditlewig, G., 9.  
 Divelbiss, E. H., 77.  
 Dix, S. H., 65.  
 Dixon, B., 48.  
 Dixon, H. M., 4.  
 Doane, C. F., 8.  
 Doane, D. H., 72.  
 Dobbins, J. T., 80.  
 Dobbs, E. C., 44.  
 Dodderidge, R. R., 73.  
 Dodds, G. S., 72.  
 Dodge, C. O., 19.  
 Dodge, H. J., 97.  
 Dodge, J. H., 32.  
 Dodge, L. G., 4.  
 Dodson, W. R., 63, 100.  
 Dolcini, V. F., 46.  
 Dolman, A. M., 85.  
 Dolt, M. L., 81.  
 Donaldson, N. C., 15.  
 Donaldson, O. M., 44.

- Doneghue, R. C., 81.  
 Donk, M. G., 20.  
 Donovan, R. L., 69.  
 Doolittle, R. E., 2.  
 Doran, E. B., 63.  
 Dorchester, C., 57.  
 Dore, W. H., 46.  
 Dorland, C. R., 36.  
 Dorman, J. E., 8.  
 Dornier, H. B., 54.  
 Dorset, M., 7.  
 Dorsett, P. H., 18.  
 Dorsey, H., 96.  
 Dorsey, M. J., 69.  
 Doryland, C. J. T., 82.  
 Doten, S. B., 75.  
 Doty, H. S., 57.  
 Doty, S. W., 36.  
 Dougherty, J. E., 46.  
 Douglass, A. E., 45.  
 Douglass, E., 48.  
 Douglass, H. H., 46.  
 Douglass, T. R., 57.  
 Dove, W. E., 25.  
 Dovener, W. M., 25.  
 Dover, M. V., 72.  
 Dow, B. K., 49.  
 Dowdle, L. P., 51.  
 Dowell, A. A., 57.  
 Dowling, O., 22.  
 Downey, U. J., 8.  
 Downing, G. J., 52.  
 Downing, J. E., 51.  
 Downing, R. C., 93.  
 Dox, A. W., 57.  
 Doyle, A. M., 19.  
 Doyle, C. B., 14.  
 Doyle, E. S., 16.  
 Doyle, L. P., 55.  
 Drain, H. D., 80.  
 Drake, C. J., 82.  
 Drake, J. A., 4.  
 Draper, A. E., 18.  
 Drescher, H. A., 97.  
 Drew, J. M., 69.  
 Drinkard, A. W., jr., 94.  
 Drisdale, C. B., 92.  
 Drummond, B., 14.  
 Dryden, J., 85.  
 Du Bois, C., 13.  
 Duck, R. W., 86.  
 Duckett, A. B., 25.  
 Dudley, J. B., 81.  
 Dudley, J. E., jr., 24.  
 Duffee, F. W., 49.  
 Duggar, J. F., 43, 100.  
 Duke, J. W., 22.  
 Duley, F. L., 72.  
 Dunbar, B. A., 89.  
 Duncan, H. R., 90.  
 Duncan, L. N., 43.  
 Dunford, C. S., 67.  
 Dunlaway, C. A., 98, 100.  
 Dunlap, F., 72.  
 Dunlop, G., 57.  
 Dunn, A. C., 33.  
 Dunn, J. E., 23.  
 Dunn, R., 57.  
 Dunn, R. C., 91.  
 Dunning, C. W., 35.  
 Dunnington, S., 94.  
 Dunton, L., 60.  
 Durand, E. D., 69.  
 Durand, E. J., 72.  
 Durant, A. J., 72.  
 Durham, C. B., 55.  
 Durham, H., 60.  
 Durham, S. B., 8.  
 Durrant, E. P., 82.  
 Durst, C. E., 54.  
 Dutcher, R. A., 85.  
 Dutton, W. C., 67.  
 Duval, L., 15.  
 Duvel, J. W. T., 15.  
 Dvorachek, H. E., 45.  
 Dworak, M., 63.  
 Dyar, H. G., 26.  
 Dyer, C. L., 17.  
 Dyer, D. C., 8.  
 Dykstra, R. R., 60.  
 Dynes, O. W., 78.  
 Dynes, R. C., 82.  
 Eakins, H. S., 48.  
 Eames, A. J., 78.  
 Earhart, R. F., 82.  
 Earl, D. L., 97.  
 Earle, D. E., 37, 38, 39.  
 Early, T. A., 70.  
 Earnshaw, F. L., 27.  
 Easley, C. W., 64.  
 Eason, F. G., 34.  
 Easson, R. B., 55.  
 Eastham, R. F., 33.  
 Eastman, A. S., 18.  
 Eastman, E. E., 57.  
 Eastman, W. E., 67.  
 Eastwood, G. R., 84.  
 Eaton, C. W., 64.  
 Eaton, W. H., 80.  
 Ebersol, E. T., 54.  
 Ebner, U. S., 26.  
 Eckhardt, C. M., 97.  
 Eckles, C. H., 72.  
 Eckman, O. L., 75.  
 Eckmann, E. C., 23.  
 Edgerton, C. W., 63.  
 Edgerton, P. R., 55.  
 Edgerton, R., 57.  
 Edmiston, H. D., 86.  
 Edmond, H. D., 49.  
 Edmonds, J. L., 54.  
 Edmonds, M. E., 67.  
 Edmonston, W. D., 25.  
 Edmundson, W. C., 52.  
 Edson, E. O., 63.  
 Edson, H. A., 14.  
 Edwards, H., 88, 100.  
 Edwards, L., 71.  
 Edwards, R. W., 16, 91.  
 Edwards, W. E. J., 67.  
 Edwards, W. G., 86.  
 Egbert, A. D., 92.  
 Eggleston, J. D., 93.  
 Eggleston, W. W., 15.  
 Eichling, H. L., 57.  
 Eichorn, A., 9.  
 Ekblaw, K. J. T., 54.  
 Elder, D., 88.  
 Eldred, F. H., 20.  
 Eldredge, B. R., 8, 92.  
 Eldridge, J. H., 33.  
 Eldridge, M. O., 33.  
 Elkins, M. W., 88.  
 Ellenberger, H. B., 78.  
 Ellenberger, W. P., 8.  
 Ellenwood, C. W., 84.  
 Ellett, W. B., 94.  
 Ellington, E. V., 52.  
 Elliott, C., 89.  
 Elliott, H. M., 91.  
 Elliott, N. R., 62.  
 Elliott, P., 82.  
 Ellis, D. C., 10.  
 Ellis, O. I., 54.  
 Ellison, A. D., 15.  
 Ellison, E. M., 74.  
 Elser, W. L., 55.  
 Elwood, C. F., 46.  
 Elwood, P. H., 82.  
 Emberson, R. H., 72.  
 Embury, G. C., 78.  
 Emerson, F. V., 63.  
 Emerson, M. F., 75.  
 Emerson, R. A., 78.  
 Emerson, R. L., 18.  
 Emery, J. A., 8, 39.  
 Emery, W. O., 19.  
 Emery, W. T., 24.  
 Emmett, A. D., 54.  
 Emmons, R. A., 26.  
 Ende, C. L. von, 53.  
 Enders, H. E., 55.  
 Enger, A. L., 45.  
 English, D. T., 54.  
 English, E. H., 63.  
 Enlows, E. M., 13.  
 Epple, W. F., 55.  
 Erb, E. S., 86.  
 Erf, O., 83.  
 Erickson, L. W., 33.  
 Erickson, T. A., 69.  
 Ericson, A., 69.  
 Erwin, A. T., 57.  
 Eskew, H. L., 22.  
 Espe, K., 57.  
 Essary, S. H., 90.  
 Essig, E. O., 46.  
 Estabrook, L. M., 29.  
 Estelle, H. S., 92.  
 Esten, W. M., 49.  
 Estil, J. S., 63.  
 Eswine, H. E., 83.  
 Etheridge, J. I., 97.  
 Etheridge, W. C., 50.  
 Etherton, W. A., 60.  
 Etters, D. B., 86.  
 Eubank, M., 96.  
 Eustace, H. J., 67.  
 Evans, A. C., 8.  
 Evans, A. D., 73.



- Evans, A. M., 38.  
 Evans, A. R., 72.  
 Evans, B. V., 70.  
 Evans, C. M., 91.  
 Evans, E. A., 7.  
 Evans, F. N., 54.  
 Evans, J. A., 31.  
 Evans, J. O., 15.  
 Evans, M. O., 85.  
 Evans, M. W., 16.  
 Evans, N. S., 82.  
 Evans, P., 73.  
 Evans, P. N., 55.  
 Evans, R. J., 92.  
 Evans, S. W., 88.  
 Evans, W. H., 30.  
 Evans, W. L., 83.  
 Evenson, O. L., 19.  
 Everett, G. A., 78.  
 Evvard, J. M., 57.  
 Ewan, A. E., 62.  
 Ewell, A. D., 92.  
 Ewell, Mrs. R. L., 92.  
 Ewing, A. L., 69.  
 Ewing, C. O., 21.  
 Ewing, D. T., 67.  
 Ewing, H. E., 57.  
 Ewing, P. A., 34.  
 Ewing, P. V., 51.  
 Fabis, A. I., 24.  
 Fagan, F. N., 86.  
 Fagan, M. E., 10.  
 Fahrnkopf, H. F. T., 54.  
 Fain, J. R., 51.  
 Fairbank, H. S., 33.  
 Fairchild, D., 17.  
 Fairchild, E. T., 75.  
 Falck, J. G., 13.  
 Falconer, J. I., 83.  
 Fansler, O. N., 29.  
 Farley, A. J., 76.  
 Farley, F. W., 70.  
 Farnham, F. H., 8.  
 Farnham, P. S., 28.  
 Farra, J. A., 62.  
 Farrar, R. K., 57.  
 Farrar, S. K., 20.  
 Farrell, F. D., 18.  
 Farrell, G. E., 32.  
 Farrell, J. J., 22.  
 Farrington, A. M., 9.  
 Farrington, E. H., 97.  
 Fassig, O. L., 7.  
 Faulwetter, R. C., 88.  
 Fauntleroy, J. D., 33.  
 Faurot, F. W., 72.  
 Favage, A. D., 98.  
 Fawcett, C. J., 75.  
 Fawcett, H. S., 46.  
 Fay, L. E., 90.  
 Feagans, R. F., 4.  
 Fecht, E. E., 60.  
 Fedde, M. S., 74.  
 Feeley, R. O., 88.  
 Felps, C. I., 60.  
 Fenn, F. A., 13.  
 Fenn, H. E., 13.  
 Fenton, F. A., 24.  
 Fenton, F. C., 57.  
 Fenwick, I. H., 94.  
 Fergus, H., 8, 49.  
 Ferguson, C. W., 43.  
 Ferguson, H. C., 43.  
 Ferguson, J. A., 86.  
 Ferguson, M., 57.  
 Ferguson, W. C., 95.  
 Fergusson, S. P., 75.  
 Fernald, C. H., 66.  
 Fernald, H. T., 66.  
 Ferrin, E. F., 57.  
 Ferris, E. B., 70.  
 Ferris, L. W., 19.  
 Ferry, E. L., 49.  
 Ferry, E. S., 55.  
 Fewell, L., 60.  
 Field, O. J., 38.  
 Fields, W. S., 45.  
 Filler, C. G., 43.  
 Filley, H. C., 74.  
 Filley, W. O., 49.  
 Finch, B. F., 33.  
 Fink, D. E., 25, 94.  
 Fink, G. J., 57.  
 Fippin, E. O., 78.  
 Firor, G. W., 51.  
 Firor, J. W., 51.  
 Fischer, G. L., 17.  
 Fishburn, H. P., 53.  
 Fisher, A. K., 26.  
 Fisher, D. F., 14.  
 Fisher, F. A., 54.  
 Fisher, G., 57.  
 Fisher, J. W., jr., 35.  
 Fisher, M. L., 55.  
 Fisher, W. J., 75.  
 Fisher, W. S., 25.  
 Fisk, W. W., 78.  
 Fiske, F. C., 93.  
 Fiske, R. J., 24.  
 Fitch, C. L., 57.  
 Fitch, J. B., 60.  
 Fitch, W. Q., 55.  
 Fite, A. B., 77.  
 Fitterer, J. C., 99.  
 Fitts, E. B., 85.  
 Fitts, F. O., 88.  
 Fitz, L. A., 22, 60.  
 Fitzgerald, N., 57.  
 Fitzpatrick, H. M., 78.  
 Fitzpatrick, W. W., 8, 88.  
 Fitz-Randolph, R. B., 22.  
 Fleming, C. E., 75.  
 Fleming, G. E., 54.  
 Fleming, J., 8.  
 Fleming, R. M., 14.  
 Fletcher, C. C., 23.  
 Fletcher, L. J., 95.  
 Fletcher, W. F., 17.  
 Flint, E. R., 50.  
 Flint, L. H., 93.  
 Flocken, C. F., 9.  
 Flohr, L. B., 36.  
 Florell, V. H., 15.  
 Flory, C. H., 13.  
 Flossfeder, F. C. H., 46.  
 Floyd, B. F., 50.  
 Floyd, E. V., 60.  
 Floyd, W. L., 50.  
 Fluharty, L. W., 4.  
 Flume, A. J., 80.  
 Flynn, W. F., 78.  
 Foard, W. E., 48.  
 Foltz, L. S., 48.  
 Foord, J. A., 66.  
 Forbes, E. B., 84.  
 Forbes, R. H., 45.  
 Forbes, W. T. M., 78.  
 Forbush, E. H., 66.  
 Forbush, W. C., 87.  
 Ford, C. M., 73.  
 Ford, J. C., 43.  
 Ford, J. H., 91.  
 Formad, R. J., 9.  
 Forman, L. W., 57.  
 Forrest, E., 73.  
 Forst, L. B., 21.  
 Fortier, S., 34.  
 Fortney, W., 60.  
 Foster, J. H., 91.  
 Foster, L., 77.  
 Foster, W. D., 9.  
 Foubert, C. L., 15.  
 Foulk, C. W., 83.  
 Foust, J., 22.  
 Fowlds, M., 89.  
 Fowler, C. C., 57.  
 Fowler, F. H., 13.  
 Fowler, W. L., 84.  
 Fox, D. S., 78.  
 Fox, H., 24.  
 Fox, P. J., 23.  
 Frame, N. T., 96.  
 France, L. V., 69.  
 Francis, C. K., 84.  
 Francis, G., 32.  
 Francis, L., 35.  
 Francis, M., 91.  
 Francis, R. L., 38.  
 Frandsen, J. H., 74.  
 Frandsen, P., 75.  
 Frankenfield, H. C., 6.  
 Franklin, H. J., 66.  
 Franklin, O. M., 60.  
 Frantz, A. E., 22.  
 Fraps, G. S., 91.  
 Frary, G. G., 22.  
 Fraser, A. C., 78.  
 Fraser, W. J., 54.  
 Frazier, J. S., 51.  
 Frear, D. W., 82.  
 Frear, W., 86.  
 Fred, E. B., 97.  
 Frederick, E. L., 80.  
 Frederick, H. J., 92.  
 Fredholm, A., 87.  
 Freeborn, S. B., 46.  
 Freeman, B., 50.  
 Freeman, E. M., 39, 69, 100.  
 Freeman, F. R., 64.  
 Freeman, G. F., 45.

- French, F. E., 77.  
 French, H. T., 48.  
 French, M., 60.  
 French, N. A., 64.  
 French, W. H., 67.  
 Freret, R. A., 38.  
 Frescoln, S. W., 34.  
 Frevert, G. E., 8.  
 Frey, R. W., 20.  
 Fricke, F. H., 22.  
 Friedemann, T., 67.  
 Frier, G. M., 55.  
 Fries, J. A., 87.  
 Frissell, H. B., 94.  
 Fritz, C. M., 84.  
 Froehlich, P., 35.  
 Fromme, F. D., 94.  
 Fromme, N. K., 89.  
 Froning, H. R., 83.  
 Frost, H. B., 46.  
 Frost, S. W., 78.  
 Frost, W. D., 97.  
 Frothingham, E. H., 12.  
 Fry, E., 58.  
 Fry, W. H., 23.  
 Fryhofer, C. W., 8.  
 Fuchs, W. R., 28.  
 Fuller, F. D., 55.  
 Fuller, H. B., 32.  
 Fuller, J. G., 97.  
 Fuller, J. M., 84.  
 Fuller, P. E., 24.  
 Fulmer, E., 95.  
 Fulmer, H., 97.  
 Fulton, B. B., 80.  
 Fulton, K. V., 92.  
 Funchess, M. J., 43.  
 Funk, W. C., 4.  
 Furber, F. B., 21.  
 Futrall, J. C., 45.  
 Gabrielson, I. N., 26.  
 Gaddie, M. C., 63.  
 Gaddis, L. R., 55.  
 Gaddis, P. L., 74.  
 Gaessler, W. G., 58.  
 Gage, G. E., 66.  
 Gahan, A. B., 24.  
 Gail, A. D., jr., 35.  
 Gail, F. W., 53.  
 Gain, J. H., 74.  
 Gaines, B. B., 50.  
 Gaines, E. F., 95.  
 Galney, P. L., 60.  
 Galbreath, M., 33.  
 Galehouse, D. W., 84.  
 Gallagher, B. A., 9.  
 Galloway, B. T., 77.  
 Galpin, C. J., 97.  
 Galpin, S. L., 58.  
 Gamash, A. W., 76.  
 Gamble, J. A., 8.  
 Gamble-Spriggs, A. D., 96.  
 Gammack, F. S., 94.  
 Garcia, F., 77.  
 Gardiner, R. F., 23.  
 Gardner, F. D., 86.  
 Gardner, J. J., 54.  
 Gardner, J. S., 72.  
 Gardner, V. R., 85.  
 Garland, J. J., 97.  
 Garman, H., 62.  
 Garner, W. W., 15.  
 Garren, G. M., 91.  
 Garren, Mrs. G. M., 91.  
 Garrett, C. L., 78.  
 Garrett, F. W., 54.  
 Garrett, J. B., 63.  
 Garrety, W. P., 32.  
 Garrigus, H. L., 49.  
 Garrison, H. S., 15.  
 Garver, S., 16.  
 Garvin, A. L., 56.  
 Garwood, R. S., 87.  
 Gaskill, E. F., 66.  
 Gasser, G. W., 31, 44.  
 Gates, B. N., 66.  
 Gates, F. H., 24.  
 Gates, O. H., 4.  
 Gates, W. H., 63.  
 Gatewood, R., 60.  
 Gault, F. M., 22.  
 Gaumnitz, C., 82.  
 Gayle, H. K., 70.  
 Gearhart, C. A., 84.  
 Gearhart, W. S., 60.  
 Gee, E. C., 91.  
 Gehrand, G. W., 69.  
 Geib, W. J., 23, 97.  
 Geiger, G. A., 18.  
 Geisert, B. F., 72.  
 Gentle, G. E., 54.  
 Gentner, L. G., 85.  
 George, C. R., 56.  
 George, D. C., 95.  
 George, L. R., 56.  
 Georgeson, C. C., 30, 44.  
 Georgia, A. E., 78.  
 Gerlicke, W. F., 46.  
 Gerlaugh, P., 86.  
 Gernert, W. B., 54.  
 Gettemy, W. S., 58.  
 Getty, R. E., 16, 60.  
 Gibbens, E., 43.  
 Gibbs, H. D., 19.  
 Gibson, A. M., 65.  
 Gibson, A. W., 78.  
 Gibson, D. D., 43.  
 Gibson, E. H., 24.  
 Giddings, N. J., 96.  
 Gieseker, L. F., 73.  
 Gilbert, A. G., 94.  
 Gilbert, A. H. (Ind.), 56.  
 Gilbert, A. H. (Ky.), 62.  
 Gilbert, A. W., 78.  
 Gilbert, E. O., 16.  
 Gilbert, G. A., 8.  
 Gilbert, G. B., 14.  
 Gilbert, J. C., 35.  
 Gilbert, W., 64.  
 Gilbert, W. W., 14.  
 Gilbertson, G., 89.  
 Gilbertson, H. W., 32.  
 Gilchrist, D. A., 26.  
 Gile, P. L., 31, 87.  
 Giles, J. K., 51.  
 Gilkerson, H. C., 54.  
 Gilkey, R., 78.  
 Gill, J. B., 24.  
 Gillam, L. G., 76.  
 Gillespie, L. J., 14.  
 Gillespie, W. C., 86.  
 Gillett, G. P., 85.  
 Gillette, C. P., 48.  
 Gillette, L. S., 58.  
 Gillison, B., 89.  
 Gilman, J. M., 15.  
 Gilmore, A., 94.  
 Gilmore, J. U., 24.  
 Gilmore, J. W., 46.  
 Gilmore, W. J., 85.  
 Gilson, W. I., 67.  
 Giltner, L. T., 9.  
 Giltner, W., 67.  
 Gingery, J. B., 72.  
 Ginsberg, I., 50.  
 Girault, A. A., 26.  
 Girton, E. S., 58.  
 Gliven, G. C., 86.  
 Gladwin, F. E., 80.  
 Glascock, E. C., 34.  
 Glaser, R. W., 26.  
 Glasgow, G., 60.  
 Glasgow, H., 80.  
 Glasscock, H. R., 72.  
 Glasson, E. J., 30.  
 Glover, G. H., 48.  
 Glover, M. W., 18.  
 Gloyer, W. O., 80.  
 Gobble, C. F., 56.  
 Goddard, L. H., 32.  
 Goddard, M., 89.  
 Godfrey, G. H., 15.  
 Godin, F. J., 88.  
 Goldbeck, A. T., 34.  
 Goldenweiser, E. A., 4.  
 Goldman, E. A., 27.  
 Goldman, L. J., 26.  
 Goldthwaite, N. E., 76.  
 Goll, F. L., 14.  
 González, P., 87.  
 Good, E. S., 62.  
 Goodale, H. D., 66.  
 Goodell, C. J., 51.  
 Gooding, J. H., 95.  
 Gooding, C. L., 86.  
 Goodman, A. L., 23.  
 Goodman, A. M., 8.  
 Goodnow, E. H., 21.  
 Goodrich, C. E., 20.  
 Goodrich, C. L., 4.  
 Goodrich, H. R., 58.  
 Goodspeed, W. E., 92.  
 Goodwin, J. A., 89.  
 Goodwin, O. T., 51.  
 Goodwin, W. H., 84.  
 Gordon, C. E., 66.  
 Gordon, C. H., 90.  
 Gordon, H. B., 91.  
 Gordon, J. H., 34.  
 Gordon, R. A., 71.

Gordon, W. O., 21.  
 Gore, H. C., 19.  
 Gorham, W. R., 86.  
 Gortner, R. A., 69.  
 Goss, A., 55.  
 Goss, L. W., 60.  
 Goss, W. L., 16.  
 Gossard, H. A., 84.  
 Gossard, O., 84.  
 Gossier, H., 54.  
 Gott, E. J., 62.  
 Gottschalk, C., 73.  
 Goucher, E., 18.  
 Gould, H. P., 17.  
 Gourley, J. H., 76.  
 Gow, R. M., 45.  
 Grab, E. G., 19.  
 Graber, L. F., 97.  
 Graber, M., 83.  
 Grace, O. J., 16.  
 Grady, J. R., 97.  
 Graf, J. E., 25.  
 Graham, A. B., 32.  
 Graham, C. K., 94.  
 Graham, J. C., 66.  
 Graham, J. J. T., 20.  
 Graham, K. H., 50.  
 Graham, R., 62.  
 Graham, W. A., 22.  
 Grainger, W. E., 90.  
 Gramlich, H. J., 74.  
 Granger, C. M., 13.  
 Grant, A. J., 76.  
 Grant, E. H., 21.  
 Grant, R. Q., 7.  
 Grantham, A. E., 49.  
 Grantham, G. M., 67.  
 Graul, E. J., 97.  
 Gravatt, G. F., 14.  
 Graves, G. W., 53.  
 Graves, H. S., 10.  
 Graves, L. E., 50.  
 Graves, R. R., 85.  
 Gravitt, W. T., 44.  
 Gray, C. E., 54.  
 Gray, D., 60.  
 Gray, D. T., 80.  
 Gray, F. J., 70.  
 Gray, G., 54.  
 Gray, G. P., 46.  
 Gray, J. C., 86.  
 Gray, S. D., 87.  
 Gray, V. E., 56.  
 Graybill, J. L., 8.  
 Greathouse, C. H., 28.  
 Greathouse, L. H., 23.  
 Greaves, J. E., 92.  
 Greeley, W. B., 11.  
 Green, C. R., 66.  
 Green, G. R., 86.  
 Green, H. L., 60.  
 Green, R. L., 56.  
 Green, R. M., 72.  
 Green, W. J., 84.  
 Green, W. W., 94.  
 Greenbank, W. K., 84.  
 Greene, C. T., 25.

Greene, C. W., 44.  
 Greene, G. O., 60.  
 Greene, J. H., 54.  
 Greene, L., 58.  
 Greenhalgh, V., 92.  
 Greenlee, A. D., 21.  
 Gregg, C. J., 89.  
 Gregg, J. W., 46.  
 Gregory, C. T., 78.  
 Gregory, H. W., 89.  
 Gregory, W. B., 34, 35.  
 Gridley, R. M., 51.  
 Grier, L., 78.  
 Griffin, E. L., 20.  
 Griffin, F. L., 78.  
 Griffith, C. I., 97.  
 Griffith, D. C., 35, 38.  
 Griffith, L. C., 25.  
 Griffiths, D., 16.  
 Griggs, R. F., 83.  
 Griggs, W. D., 16.  
 Grimes, M. F., 86.  
 Grimes, W. E., 60.  
 Grindley, H. S., 54.  
 Griscom, L., 78.  
 Grissom, J. T., 94.  
 Griswold, D. J., 72.  
 Gromer, S. D., 72.  
 Groshon, M., 22.  
 Gross, E. R., 48.  
 Gross, L. G., 78.  
 Grossenbacher, J. G., 14.  
 Grossman, J. D., 58.  
 Groth, M., 76.  
 Grotlisch, V. E., 20.  
 Grover, E. L., 67.  
 Grover, O. L., 33.  
 Groves, A. M., 18.  
 Groves, J. F., 99.  
 Grunsky, H. W., 34.  
 Guard, W. F., 58.  
 Guernsey, J. E., 46.  
 Guilbeau, P. L., 63.  
 Guild, F. N., 45.  
 Guise, C. H., 78.  
 Gullledge, E. P., 70.  
 Gullely, A. G., 49.  
 Gulliver, H. G., 64.  
 Gunderson, A. J., 54.  
 Gunn, R. V., 97.  
 Gunness, C. I., 66.  
 Gunson, T., 67.  
 Guptill, W. T., 22.  
 Gurdy, M. W., 64.  
 Guseman, S. R., 96.  
 Gusler, G., 54.  
 Gustafson, A. F., 54.  
 Guthrie, C. T., 82.  
 Guthrie, D. V., 63.  
 Guthrie, E. S., 78.  
 Guthrie, J. E., 58.  
 Gutsche, F. C., 60.  
 Haas, A. R., 86.  
 Haasebrock, M., 95.  
 Hackedorn, H., 72.  
 Hackleman, J. C., 72.

Hadley, C. H., jr., 78.  
 Hadley, F. B., 97.  
 Hadley, G., 82.  
 Hadley, M. B., 50.  
 Hadley, P. B., 88.  
 Haecker, T. L., 69.  
 Hagan, H. R., 92.  
 Hagan, W. A., 60.  
 Hageman, A. M., 76.  
 Hagen, R. M., 46.  
 Haggard, M. J., 69.  
 Haggart, M. H., 60.  
 Hahner, A. R., 53.  
 Haigh, L. D., 72.  
 Haire, D. G., 33.  
 Hale, W. J., 90.  
 Haley, D. E., 86.  
 Hall, A. G., 34.  
 Hall, E. C., 23.  
 Hall, E. M., 95.  
 Hall, F. H., 80.  
 Hall, H. M., 46.  
 Hall, I. W., 35.  
 Hall, L. D., 36, 39.  
 Hall, M. C., 9.  
 Hall, O. E., 60.  
 Hall, W. L., 12, 13.  
 Hall, W. M., 63.  
 Hall, W. N., 34.  
 Halliday, G., 48.  
 Halligan, C. P., 67.  
 Hallman, E. T., 67.  
 Hallsted, A. L., 16, 60.  
 Halpin, J. G., 97.  
 Halsted, B. D., 76.  
 Ham, E. S., 78.  
 Ham, F. W., 73.  
 Haman, M. B., 78.  
 Hamilton, E. W., 53.  
 Hamilton, J., 58.  
 Hamilton, J. F., 72.  
 Hamilton, J. G., 77.  
 Hamilton, J. M., 73, 100.  
 Hamilton, J. O., 60.  
 Hamilton, W., 8.  
 Hammer, B. W., 58.  
 Hammerly, J. M., 15.  
 Hammond, H. J., 8.  
 Hammond, H. S., 85.  
 Hammond, J. W., 84.  
 Hammond, R. L., 64.  
 Hampson, C. B., 53.  
 Hampton, R. H., 44.  
 Hampton, T. M., 73.  
 Hamrick, A. M., 7.  
 Hancher, K. G., 67.  
 Hand, W. F., 22, 70.  
 Handley, J. T., 80.  
 Handschin, W. F., 53.  
 Handy, R. B., 28.  
 Handy, W. M., 95.  
 Hanford, J. G., 35.  
 Hanger, W. E., 83.  
 Hansen, A. A., 86.  
 Hansen, A. W., 21.  
 Hansen, D., 17.  
 Hansen, N. E., 89.

- Hansen, R., 54.  
 Hanson, E. O., 69.  
 Hanson, H. H., 64.  
 Hanson, P., 58.  
 Hanson, W. S., 28.  
 Haralson, C., 69.  
 Harden, F. G., 34.  
 Hardenburg, E. V., 78.  
 Hardin, M. B., 89.  
 Harding, A. S., 89.  
 Harding, H. A., 54.  
 Harding, S. T., 34.  
 Harding, T. S., 19.  
 Harding, W. F., 28.  
 Hardison, R. B., 23.  
 Hare, C. L., 43.  
 Hare, F. C., 89.  
 Hargreaves, S., 93.  
 Hargrove, H. H., 63.  
 Haring, C. M., 46.  
 Harkey, R. M., 91.  
 Harkins, L. A., 73.  
 Harlan, H. V., 15.  
 Harman, C. E., 22.  
 Harman, M. T., 60.  
 Harned, H. H., 71.  
 Harned, R. W., 71.  
 Harper, C., 54.  
 Harper, J. D., 56.  
 Harper, J. N., 88.  
 Harper, J. W., 89.  
 Harper, M. W., 78.  
 Harrington, F. M., 58.  
 Harrington, G. T., 16.  
 Harris, A. M., 65.  
 Harris, F. S., 92.  
 Harris, G. W., 15.  
 Harris, H. H., 44.  
 Harris, J. M., 64.  
 Harris, J. T., 12.  
 Harris, M. H., 50.  
 Harris, M. L., 92.  
 Harris, N. L., 60.  
 Harris, R. T., 97.  
 Harrison, A. K., 66.  
 Harrison, B. M., 58.  
 Harrison, C. T., 33.  
 Harrison, F., 54.  
 Harrison, M., 60.  
 Harrison, R. H., 33.  
 Harrison, S. D., 44.  
 Hariss, O., 90.  
 Harsch, R., 34.  
 Hart, B. R., 21.  
 Hart, E. B. (N. C.), 80.  
 Hart, E. B. (Wis.), 97.  
 Hart, G. A., 35.  
 Hart, H. B., 58.  
 Hart, J. C., 94.  
 Hart, J. H., 94.  
 Hart, L. C., 51.  
 Hart, R. A., 34.  
 Hart, W. R., 66.  
 Hartenbower, A. C., 31, 52.  
 Harter, G. A., 49.  
 Harter, L. L., 14.  
 Hartgering, G., 89.  
 Hartley, C. H., 96.  
 Hartley, C. P., 15.  
 Hartley, Carl P., 14.  
 Hartman, L. W., 75.  
 Hartman, W. J., 73.  
 Hartsuch, B. E., 67.  
 Hartwell, B. L., 88.  
 Hartwell, F. E., 7.  
 Hartzell, F. Z., 80.  
 Harvey, B. T., 25.  
 Harvey, E. M., 14.  
 Harvey, F. L., 11.  
 Harvey, L. E., 78.  
 Harvey, R. B., 15.  
 Harvey, R. N., 91.  
 Harvey, T. W., 56.  
 Hasbrouck, P. B., 66.  
 Haseman, L., 72.  
 Haskell, C. G., 34.  
 Haskell, E. S., 4.  
 Haskell, R. J., 78.  
 Haskins, H. D., 66.  
 Haslam, T. P., 60.  
 Hassall, A., 9.  
 Hasse, C. H., 14.  
 Hasselbring, H., 15.  
 Hastings, E. G., 97.  
 Hastings, S. H., 17.  
 Haswell, J. R., 34.  
 Hatch, A. V., 67.  
 Hatch, K. L., 97, 100.  
 Hathaway, A. S., jr., 33.  
 Hathaway, E. O., 33.  
 Hathaway, M. C., 83.  
 Hathorn, I., 69.  
 Hatton, J. H., 13.  
 Hauser, A. J., 58.  
 Hauser, M. A. (Iowa), 58.  
 Hauser, M. A. (N. J.), 76.  
 Hausman, L. A., 78.  
 Hayner, H. H., 86.  
 Hawbaker, C. C., 36.  
 Hawes, A. F., 93.  
 Hawker, H. W., 23.  
 Hawkes, A. H., 58.  
 Hawkins, L. A., 15.  
 Hawkins, L. S., 78.  
 Hawkins, M. A., 88.  
 Hawks, E. B., 29.  
 Hawley, I. M., 78.  
 Hawthorne, H. W., 4.  
 Hayden, A., 58.  
 Hayden, C. C., 84.  
 Hayden, C. J., 81.  
 Hayden, H. E., jr., 91.  
 Hayes, F. M., 46.  
 Hayes, G. T., 67.  
 Hayes, H., 58.  
 Hayes, H. K., 69.  
 Hayes, J. B., 97.  
 Hayes, M. E., 49.  
 Hayes, M. L., 91.  
 Hayes, W. P., 60.  
 Hayes, W. W., 44.  
 Haynes, M. M., 48.  
 Hays, E., 53.  
 Hays, M. E., 72.  
 Hayward, H., 49.  
 Haywood, J. K., 20, 39.  
 Haywood, W. G., 81.  
 Hazard, B. E., 78.  
 Hazen, L. E., 78.  
 Hazen, W., 23.  
 Headden, W. P., 48.  
 Headlee, T. J., 76, 77.  
 Headley, F. B., 17.  
 Headley, R., 13.  
 Heald, F. D., 95.  
 Healy, D. J., 62.  
 Hean, C. S., 97.  
 Heard, C. H., 45.  
 Hearn, W. E., 23, 81.  
 Heaton, H. C., 72.  
 Hebard, G. R., 99.  
 Hechler, W. R., 58.  
 Hecht, A. G., 54.  
 Heck, A. F., 95.  
 Heck, C. M., 81.  
 Hedgcock, G. G., 14.  
 Hedges, C. C., 91.  
 Hedges, F., 13.  
 Hedrick, U. P., 80.  
 Hedrick, W. O., 67.  
 Hegnauer, L., 95.  
 Heidel, B. F., 33.  
 Heidemann, O., 26.  
 Heil, H. G., 83.  
 Heim, A. L., 12.  
 Heinicke, A. J., 78.  
 Heinrich, C., 25.  
 Heinsohn, E. C., 21.  
 Heizer, D. E., 35.  
 Helder, G. K., 60.  
 Hellams, R. V., 38.  
 Helm, C. A., 74.  
 Helme, J. W., 22.  
 Helme, N., 88.  
 Helpenstine, R. K., jr., 12.  
 Helyar, J. P., 76, 77.  
 Hemphill, R. G., 34.  
 Henderson, L. B., 90.  
 Henderson, W. C., 3.  
 Hendley, H. W., 33.  
 Hendren, L. L., 51.  
 Hendrick, A. W., 75.  
 Hendrickson, A. H., 46.  
 Hendrickson, N., 21.  
 Hendrix, W. J., 83.  
 Hendry, G. W., 46.  
 Henkel, A., 16.  
 Hennessy, F. W., 28.  
 Hennis, C. M., 4.  
 Henry, A. J., 5.  
 Henry, D. H., 89.  
 Henry H. H., 16.  
 Henry, M. F., 78.  
 Henry, W. A., 97.  
 Henry, W. M., 50.  
 Hensel, F. W., 91.  
 Henshaw, H. W., 26.  
 Hepburn, J. S., 21.  
 Hepburn, N. W., 54.  
 Hepburn, W. M., 56.  
 Hepler, J. R., 97.



- Hepner, F. E., 99.  
 Hepworth, L. G., 60.  
 Herger, A. W., 4.  
 Herms, W. B., 46.  
 Herrick, G. W., 78.  
 Herrick, R. S., 58.  
 Herrington, G. L., 50.  
 Herron, L. E., 94.  
 Herron, L. G., 84.  
 Herron, V., 84.  
 Hersey, H. B., 7.  
 Hertz, H. L., 58.  
 Hervey, G. W., 45.  
 Herzer, F. H., 45.  
 Hesler, L. R., 78.  
 Hess, O. B., 8.  
 Hess, W. N., 78.  
 Hetzel, H. C., 58.  
 Hetzel, R. D., 85.  
 Hewes, L. I., 33.  
 Hewitt, J. L., 45.  
 Hibbard, B. H., 97.  
 Hibbard, P. L., 47.  
 Hibbard, R. P., 67.  
 Hibshman, E. K., 86.  
 Hickman, C. W., 53.  
 Hickman, R. W., 9.  
 Hieronymus, R. E., 54.  
 Hiers, J. L., 63.  
 Higbie, E. C., 69.  
 Higginbottom, J. H., 35.  
 Higgins, B. B., 51.  
 Higgins, E. C., 27.  
 Higgins, J. E., 31, 52.  
 Higgins, J. J., 22.  
 Higgins, L. A., 8, 71.  
 High, M. M., 25.  
 Hightower, G. R., 70.  
 Higley, L. A., 77.  
 Hilgard, E. W., 47.  
 Hill, A. R., 71, 100.  
 Hill, C. C., 24.  
 Hill, C. E., 85.  
 Hill, C. J., 47.  
 Hill, C. O., 90.  
 Hill, D. H., 80.  
 Hill, F. E., 47.  
 Hill, G. R., jr., 92.  
 Hill, H. H., 94.  
 Hill, I. W., 31.  
 Hill, J. A., 99.  
 Hill, J. B., 86.  
 Hill, M. E., 78.  
 Hill, R. G., 81.  
 Hill, T. D., 46.  
 Hill, Mrs. W. G., 51.  
 Hillegeist, W. M., 65.  
 Hillman, F. H., 16.  
 Hillman, F. M., 8.  
 Hills, F. B., 49.  
 Hills, H. M., 86.  
 Hills, J. L., 93, 100.  
 Hills, T. M., 83.  
 Hiltner, R. S., 21.  
 Hilts, R. W., 21.  
 Hilyer, J. V., 50.  
 Himmelberger, L. R., 62.  
 Hinds, W. E., 43.  
 Hine, G. S., 60.  
 Hine, J. S., 83.  
 Hingston, N. L., 73.  
 Hirleman, A. L., 51.  
 Hirst, C. T., 92.  
 Hislop, W., 95.  
 Hitch, H. J., 65.  
 Hitchcock, A. S., 16.  
 Hitchener, E. R., 86.  
 Hitchings, E. F., 64.  
 Hite, B. C., 16.  
 Hite, B. H., 96.  
 Hoagland, D. R., 47.  
 Hoagland, R., 8.  
 Hoar, C. S., 60.  
 Hobbs, C. W., 60.  
 Hobson, I. L., 99.  
 Hochbaum, H. W., 53.  
 Hockett, E., 83.  
 Hodge, H., 90.  
 Hodges, F., 91.  
 Hodges, J. T., 92.  
 Hodgkiss, H. E., 80.  
 Hodgson, A. N., 94.  
 Hodgson, E. R., 94.  
 Hodson, E. A., 81.  
 Hoff, E. J., 34.  
 Hoffer, G. N., 56.  
 Hoffman, M. H., 58.  
 Hoffman, R. H., jr., 22.  
 Hofmann, F. W., 39, 89.  
 Hogan, A. G., 60.  
 Hogenson, J. C., 92.  
 Hogg, L. J., 24.  
 Hoke, C. E., 4.  
 Holaday, H. A., 53.  
 Holben, F. J., 87.  
 Holdaway, C. W., 94.  
 Holden, J. A., 17.  
 Holden, R. J., 94.  
 Holding, W. A., 90.  
 Holland, E. B., 66.  
 Holland, E. O., 95.  
 Holland, R. P., 28.  
 Hollinger, A. H., 72.  
 Hollister, B. M., 67.  
 Hollister, S. P., 49.  
 Holloway, T. E., 24.  
 Holman, A., 60.  
 Holman, G. E., 26.  
 Holman, H. P., 20.  
 Holman, S. B., 91.  
 Holmes, A. D., 32.  
 Holmes, F. S., 65.  
 Holmes, G. K., 29.  
 Holmes, L. C., 23.  
 Holmes, O. W., 53.  
 Holmes, R. E., 16.  
 Holmes, R. M., 64.  
 Holmes, W., 81.  
 Holt, E. G., 26.  
 Holt, S. V., 54.  
 Holt, V. S., 31, 52.  
 Holton, E. L., 60.  
 Holtz, H. F., 95.  
 Homer, W. H., jr., 92.  
 Honey, E. E., 78.  
 Hood, C. E., 26.  
 Hood, G. W., 74.  
 Hood, J. D., 26.  
 Hood, S. C., 15.  
 Hooker, W. A., 30.  
 Hooper, A. L., 33.  
 Hooper, J. J., 62.  
 Hooper, J. K., 93.  
 Hoover, G. W., 21.  
 Hoover, J. M., 53.  
 Hope, L., 54.  
 Hopkins, A. D., 25.  
 Hopkins, A. W., 97.  
 Hopkins, C. G., 54.  
 Hopkins, H. C., 44.  
 Hopper, H. A., 78.  
 Hoppert, E. H., 74.  
 Hopt, E., 74.  
 Horne, W. T., 47.  
 Horst, H., 83.  
 Horton, J. R., 24.  
 Hoskins, E. E., 54.  
 Hoskins, H. P., 69.  
 Hosmer, R. S., 78.  
 Hostetter, A. B., 69.  
 Hotchkiss, W. S., 91.  
 Hottes, A. C., 78.  
 Houghton, C. O., 49.  
 Houghton, H. W., 18.  
 House, E. B., 48.  
 Houser, J. S., 84.  
 Houser, T., 84.  
 Houston, D. F., 3.  
 Howard, B. J., 20.  
 Howard, C. G., 92.  
 Howard, C. W., 69.  
 Howard, D. C., 85.  
 Howard, G. F., 69.  
 Howard, J. T., 66.  
 Howard, L. O., 23.  
 Howard, L. P., 88.  
 Howard, R. F., 74.  
 Howard, W. L., 47.  
 Howarth, H., 48.  
 Howe, A., 56.  
 Howe, F. B., 58.  
 Howe, G. H., 80.  
 Howe, H. C., 7.  
 Howe, R. W., 24.  
 Howe, W. E., 8.  
 Howell, A. H., 27.  
 Howell, C. E., 95.  
 Howell, L. G., 4.  
 Howell, W. H., 8, 51.  
 Hoy, H. H., 89.  
 Hoyt, T. C., 1.  
 Hubbard, P., 33.  
 Hubbard, W. S., 19.  
 Huber, H. F., 49.  
 Hubert, B. F., 89.  
 Hubert, E. E., 14.  
 Hudelson, R. R., 72.  
 Hudson, A. D., 37.  
 Hudson, C. R., 81.  
 Hudson, C. S., 18.  
 Hudson, E. W., 14.

- Hudson, R. S., 67.  
 Huff, C. L., 95.  
 Hughes, E. H., 72.  
 Hughes, H. D., 58.  
 Hughes, J. L., 49.  
 Hughes, J. S., 60.  
 Hughes, R. B., 78.  
 Hulbert, R., 82.  
 Hulce, R. S., 54.  
 Humbert, E. P., 91.  
 Humbert, J. G., 84.  
 Hume, A. N., 89.  
 Hummel, W. G., 47.  
 Humpherys, LeG., 92.  
 Humphrey, C. J., 12, 14.  
 Humphrey, G. C., 97.  
 Humphrey, H. B., 15.  
 Humphrey, H. N., 4.  
 Humphrey, J., 58.  
 Humphrey, J. R., 36.  
 Humphreys, W. J., 6.  
 Humphries, W. R., 34.  
 Hungerford, C. W., 15.  
 Hungerford, De F., 45.  
 Hungerford, E. H., 89.  
 Hunkins, H., 72.  
 Hunn, A. E., 78.  
 Hunn, C. E., 78.  
 Hunn, C. J., 87.  
 Hunt, A. E., 97.  
 Hunt, C. L., 32.  
 Hunt, F., 60.  
 Hunt, F. J., 65.  
 Hunt, L. W., 95.  
 Hunt, N. R., 14.  
 Hunt, R. E., 94.  
 Hunt, T. F., 46, 100.  
 Hunt, T. Fr., 47.  
 Hunter, A. J., 56.  
 Hunter, B., 4.  
 Hunter, J. M., 76, 77.  
 Hunter, Mrs. M. E., 91.  
 Hunter, O. W., 60.  
 Hunter, W. D., 23, 25, 39.  
 Huntington, F., 34.  
 Hunziker, O. F., 56.  
 Hurd, L. M., 78.  
 Hurd, W. D., 66, 100.  
 Hurley, M. I., 72.  
 Hurst, L. A., 23.  
 Husmann, F. L., 17.  
 Husmann, G. C., 17.  
 Huston, E., 62.  
 Huston, R. C., 67.  
 Hutcheson, J. R., 94.  
 Hutcheson, T. B., 94.  
 Hutchins, L. M., 14.  
 Hutchins, W. A., 34.  
 Hutchinson, A. H., 91.  
 Hutchinson, J., 54.  
 Hutchinson, W. L., 89.  
 Hutchison, C. B., 72.  
 Hutchison, J. L., 83.  
 Hutchison, R. H., 25.  
 Butt, W. N., 81.  
 Hutton, C. A., 8, 90.  
 Hutton, F. Z., 23.  
 Hutton, J., 48.  
 Hutton, J. G., 89.  
 Hutton, J. P., 67.  
 Huyett, J. B., 96.  
 Hyde, H., 53.  
 Hyslop, G. R., 85.  
 Hysiop, J. A., 24.  
 Hytree, E. C., 73.  
 Ibsen, H. L., 97.  
 Iddings, E. J., 52.  
 Ikeler, K. C., 58.  
 Illingworth, J. F., 52.  
 Imes, M., 9.  
 Ince, J. W., 82.  
 Ingall, O. D., 26.  
 Ingalls, E. L., 93.  
 Ingels, R. R., 47.  
 Ingerson, H. J., 24.  
 Ingham, A. A., 94.  
 Ingle, M. J., 19.  
 Ingram, E., 62.  
 Ingram, R. P., 69.  
 Inman, C. F., 89.  
 Ireland, H. A., 18.  
 Irion, H., 11.  
 Irons, W. C., 88.  
 Irvin, R. F., 76.  
 Irwin, G. W., 71.  
 Isaac, E. E., 58.  
 Isbell, P. C., 35.  
 Isely, D., 24.  
 Isenberg, J. E., 87.  
 Ish, J. G., jr., 46.  
 Israelsen, O. W., 47.  
 Itano, A., 66.  
 Iverson, G. W., 58.  
 Ives, F. W., 83.  
 Jackley, J. G., 60.  
 Jackson, A. M., 14.  
 Jackson, C. F., 76.  
 Jackson, F. A., 22.  
 Jackson, F. H., jr., 34.  
 Jackson, F. K., 93.  
 Jackson, H., 51.  
 Jackson, H. C., 78.  
 Jackson, H. H. T., 27.  
 Jackson, H. S., 56.  
 Jackson, J. Q., 81.  
 Jackson, J. W., 91.  
 Jackson, L. O., 26.  
 Jackson, Mrs. N. P., 91.  
 Jackson, R. C., 8.  
 Jackson, R. T., 26.  
 Jackson, V. T., 84.  
 Jacob, A. W., 69.  
 Jacob, M., 90.  
 Jacobs, B. R., 20.  
 Jacobs, C., 16.  
 Jacobs, C. A., 56.  
 Jacobson, C. A., 75.  
 Jacobson, J. H., 16.  
 Jacoby, F. S., 83.  
 Jaffa, M. E., 47.  
 Jager, F., 69.  
 Jagger, I. C., 78.  
 Jahr, M. E., 54.  
 James, C., 76.  
 James, E. J., 53.  
 James, E. W., 33.  
 James, J. A., 97.  
 James, R. W., 63.  
 Jamison, A. W., 54.  
 Jamison, O. A., 66.  
 Janssen, J. W., 33.  
 Jardine, J. T., 11.  
 Jardine, W. M., 59.  
 Jarnagin, M. P., 51.  
 Jarrell, T. D., 65.  
 Jason, W. C., 50.  
 Jayne, S. O., 4.  
 Jeffers, L. M., 15.  
 Jefferson, E., 49.  
 Jeffries, J. H., 81.  
 Jeffries, R. R., 96.  
 Jenison, J. S., 8.  
 Jenkins, A. E., 13.  
 Jenkins, C., 72.  
 Jenkins, E. H., 49.  
 Jenkins, E. M., 50.  
 Jenkins, J. M., 15.  
 Jenkins, M. K., 21.  
 Jenks, F. B., 93.  
 Jenness, J. R., 60.  
 Jennings, A. H., 25.  
 Jennings, D. S., 78.  
 Jennings, J. M., 63.  
 Jennings, R. D., 4.  
 Jennings, T. B., 7.  
 Jennings, W. J., 71.  
 Jennison, H. M., 73.  
 Jensen, C. A., 16.  
 Jensen, E. L., 69.  
 Jensen, G. H., 95.  
 Jensen, K., 73.  
 Jensen, L. N., 16.  
 Jesness, O. B., 36.  
 Jessup, L. T., 35.  
 Jeter, F. H., 81.  
 Jewett, H. H., 62.  
 Jobbins, D. M., 77.  
 Jobson, H. H., 91.  
 Jodidi, S. L., 15.  
 Johannsen, O. A., 78.  
 Johns, C. O., 18.  
 Johnson, A. G. (Oreg.), 85.  
 Johnson, A. G. (Wis.), 15, 97.  
 Johnson, E., 34.  
 Johnson, E. C., 59.  
 Johnson, F. E., 74.  
 Johnson, H. F., 93.  
 Johnson, H. W., 58.  
 Johnson, J., 97.  
 Johnson, J. M. (Bu. Chem.), 19.  
 Johnson, J. M. (Off. Sec., N. C.), 4, 81.  
 Johnson, M. O., 31, 52.  
 Johnson, O. M., 96.  
 Johnson, O. N., 97.  
 Johnson, O. R., 72.  
 Johnson, P. M., 25.  
 Johnson, S. A., 48.

- Johnson, S. B., 45.  
 Johnson, S. M., 23.  
 Johnson, T. C., 94.  
 Johnson, W. T., jr., 8.  
 Johnston, A. D., 69.  
 Johnston, Mrs. C. E., 30.  
 Johnston, F. A., 25.  
 Johnstone, G. R., 67.  
 Jones, A. J., 64.  
 Jones, C. H. (S. C.), 89.  
 Jones, C. H. (Vt.), 93.  
 Jones, C. P., 66.  
 Jones, C. R., 48.  
 Jones, C. S., 18.  
 Jones, D. B., 18.  
 Jones, D. F., 49.  
 Jones, D. W., 26.  
 Jones, E., 66.  
 Jones, E. B., 50.  
 Jones, E. E., 60.  
 Jones, E. H., 60.  
 Jones, E. I., 94.  
 Jones, E. R., 97.  
 Jones, F. R., 97.  
 Jones, G. B., 23.  
 Jones, H. F., 8.  
 Jones, H. M. (Kans.), 60.  
 Jones, H. M. (Wis.), 97.  
 Jones, J. D., 11.  
 Jones, J. E., 13.  
 Jones, J. M. (Tex.), 91.  
 Jones, J. M. (U. S. D. A.),  
     31.  
 Jones, J. S., 52.  
 Jones, J. W., 15, 93.  
 Jones, K. D., 47.  
 Jones, K. K., 87.  
 Jones, L. A., 34.  
 Jones, L. L., 56.  
 Jones, L. R., 97.  
 Jones, L. V., 64.  
 Jones, M., 97.  
 Jones, O. B., 83.  
 Jones, O. F., 17.  
 Jones, O. L., 58.  
 Jones, P. S., 18.  
 Jones, R. E., 49.  
 Jones, R. K., 64.  
 Jones, R. S., 73.  
 Jones, R. W., 62.  
 Jones, S. A., 29.  
 Jones, S. C., 56.  
 Jones, T. H., 25, 63.  
 Jones, V. R., 89.  
 Jones, W. J., jr., 22, 56.  
 Jones, W. P., 18.  
 Jordan, E. L., 63.  
 Jordan, H. C., 8.  
 Jordan, T. J., 64.  
 Jordan, W. H., 80, 100.  
 Joseph, W. E., 54.  
 Joslin, J. C., 8.  
 Joslyn, H. L., 81.  
 Judisch, G., 58.  
 Judkins, B. A., 23.  
 Judkins, H. F., 49.  
 Juenemann, H. E., 17.  
 Journey, R. C., 23.  
 Jurrjens, J. C., 97.  
 Justin, M., 67.  
 Juve, O. A., 4, 97.  
 Kadel, B. C., 5.  
 Kains, M. G., 87.  
 Kaiser, W. G., 58.  
 Kalkus, J. W., 95.  
 Kalmbach, E. R., 26.  
 Kammlade, W. G., 54.  
 Kamrass, B., 34.  
 Karper, R. E., 91.  
 Karraker, P. E., 62.  
 Kastle, J. H., 62.  
 Kauffman, T., 83.  
 Kaupp, B. F., 81.  
 Kause, R. L., 39.  
 Kays, D. J., 83.  
 Kean, J. C., 71.  
 Kearney, T. H., 16.  
 Kebler, L. F., 19.  
 Kedzie, F. S., 67.  
 Kedzie, R. H., 58.  
 Keeler, A., 63.  
 Keeler, R. F., 80.  
 Keenan, G. L., 20.  
 Keene, E. S., 82.  
 Keene, M. L., 72.  
 Keffer, C. A., 90.  
 Kehrli, F. W., 8, 85.  
 Keim, F. D., 74.  
 Keister, J. T., 19.  
 Keith, M. H., 54.  
 Keithley, J. R., 82.  
 Keitt, G. W., 97.  
 Keitt, T. E., 89.  
 Kellems, T. O., 58.  
 Kellerman, K. F., 13, 39,  
     100.  
 Kelley, E. B., 97.  
 Kelley, F. J., 97.  
 Kelley, J. B., 58.  
 Kelley, M. A. R., 72.  
 Kelley, W. P., 47.  
 Kellner, L. W., 39.  
 Kellner, R. H., 21.  
 Kellogg, E. H., 15.  
 Kellogg, W. L., 8.  
 Kelly, A., 53.  
 Kelly, E., 8.  
 Kelly, E. O. G., 24.  
 Kelly, J. P., 87.  
 Kelly, J. W., 15.  
 Kelly, W. A., 35.  
 Kelser, R. A., 9.  
 Kelso, F. L., 16.  
 Kemp, W. B., 96.  
 Kempster, H. L., 72.  
 Kempton, J. H., 14.  
 Kendall, C. H., 33.  
 Kendall, J. C., 75.  
 Kendrick, W. H., 96.  
 Kenerson, A. S., 79.  
 Kenety, W. H., 69.  
 Kennard, F. L., 69.  
 Kennedy, C., 69.  
 Kennedy, C. H., 79.  
 Kennedy, C. N., 85.  
 Kennedy, G. W., 28.  
 Kennedy, L., 60.  
 Kennedy, M. R., 94.  
 Kennedy, P. B., 47.  
 Kenney, F. C., 66.  
 Kenney, R., 60.  
 Kent, H. L., 60.  
 Kent, O. B., 79.  
 Kent, R. H., 19.  
 Kephart, C. F., 79.  
 Kephart, L. W., 16.  
 Kephart, M., 97.  
 Kercher, O., 62.  
 Kerlin, I. B., 43.  
 Kern, F. D., 87.  
 Kern, O. J., 47.  
 Kernan, C. B., 23.  
 Kernkamp, H. C., 69.  
 Kerr, A. P., 63.  
 Kerr, E. W., 63.  
 Kerr, J., 13.  
 Kerr, J. A., 23.  
 Kerr, W. H., 36, 39.  
 Kerr, W. J., 85.  
 Kewley, R. J., 24, 56.  
 Keyes, J., 26.  
 Keyser, C. N., 51.  
 Kezer, A., 48.  
 Kiah, T. H., 65.  
 Kidder, A. F., 63.  
 Kiene, F. A., jr., 15, 60.  
 Keinholz, E. H., 95.  
 Kiernan, J. A., 8.  
 Kiesselbach, T. A., 74.  
 Kigin, L. C., 56.  
 Kildee, H. H., 58.  
 Kile, O. M., 96.  
 Kilgore, B. W., 80, 100.  
 Kilham, A. D., 73.  
 Killgore, N. M., 48.  
 Killingsworth, C. E., 38.  
 Killough, D. T., 91.  
 Kilpatrick, E., 45.  
 Kilpatrick, M. C., 83.  
 Kimball, H. H., 6.  
 King, A. C., 79.  
 King, C. J., 89.  
 King, C. M., 58.  
 King, E. R., 79.  
 King, F. G., 56.  
 King, H. E., 44.  
 King, H. H., 60.  
 King, J. L., 84.  
 King, W. J., 61.  
 King, W. V., 25.  
 Kingdon, J. T., 34.  
 Kinghorn, P., 94.  
 Kingman, H. E., 48.  
 Kinman, C. F., 31, 87.  
 Kinney, E. J., 62.  
 Kinsman, C. D., 56.  
 Kiplinger, C. C., 58.  
 Kirk, N. M., 23.  
 Kirkpatrick, E. L., 79.  
 Kirkpatrick, J. I., 99.

- Kirkpatrick, W. F., 49.  
 Kirkwood, W. P., 69.  
 Kiser, R. W., 63.  
 Kjelson, A. A., 74.  
 Klein, J. P., 35.  
 Klein, M. A., 47.  
 Kleinhertz, F., 98.  
 Kleinschmidt, L. S., 87.  
 KleinSmid, R. B. von, 45.  
 Klem, S. V., 67.  
 Klopfer, H., 18.  
 Knab, F., 26.  
 Knapp, B., 31, 100.  
 Knapp, H., 58.  
 Knapp, H. B., 79.  
 Kneeland, H., 72.  
 Kneipp, L. F., 13.  
 Knight, C. S., 75.  
 Knight, E. H., 99.  
 Knight, H. A., 64.  
 Knight, H. G., 98.  
 Knight, H. L., 30.  
 Knight, L. I., 96.  
 Knight, O. D., 20.  
 Knisely, A. L., 21.  
 Knobel, E. W., 72.  
 Knoll, F. P., 87.  
 Knorr, F., 17, 74.  
 Knowles, N. S., 58.  
 Knowlton, H., 79.  
 Knox, J. S., 45.  
 Knudson, L., 79.  
 Kocher, A. E., 23.  
 Koebeler, A., 52.  
 Koehler, J. E., 88.  
 Koenig, N. E., 58.  
 Kohmann, E. F., 54.  
 Kolb, C. A., 11.  
 Kolshorn, H., 99.  
 Koonce, L. F., 81.  
 Kopman, H. H., 28.  
 Kostalek, J. A., 53.  
 Kostir, W. J., 83.  
 Kotinsky, J., 25.  
 Krak, J. H. B., 96.  
 Krall, J. A., 58.  
 Kramer, E. W., 13.  
 Kramer, W. H., 84.  
 Kraus, E. J., 85.  
 Krauss, F. G., 31, 52.  
 Kraybill, H. R., 87.  
 Kreckler, F. H., 83.  
 Kress, O., 12.  
 Krout, W. S., 77.  
 Kruegl, C., 34.  
 Krum, W. G., 79.  
 Krusekopf, H. H., 72.  
 Kuhlman, A. H., 98.  
 Kulp, W. L., 67.  
 Kunerth, W., 58.  
 Kunesch, J. F., 34.  
 Kunsman, C. H., 77.  
 Kunst, F. B., 96.  
 Kuska, J. B., 17.  
 Kuzirian, S. B., 58.  
 Kyle, C. H., 15.  
 Kyle, E. J., 91.
- Laake, E. W., 25.  
 LaBach, J. O., 62.  
 Lacey, N. W., 14.  
 Lackie, H. M., 58.  
 Ladd, E. F., 22, 82.  
 Ladd, G. E., 77.  
 Ladd, J. E., 56.  
 LaFollette, R. J., 79.  
 La Forge, F. B., 19.  
 Lafrenz, F. H., 53.  
 Lake, E. R., 17.  
 La Master, J. P., 8, 71.  
 Lamb, A. R., 58.  
 Lamb, C. C., 85.  
 Lamb, G. N., 12.  
 Lamb, W. H., 12.  
 Lambert, D. J., 88.  
 Lambert, F. A., 83.  
 Lamon, H. M., 7.  
 Lamoureux, A. J., 79.  
 Lampe, W. H. G., 91.  
 Lamson, G. H., jr., 49.  
 Lamson, R. A., 56.  
 Lamson, R. W., 20.  
 Lamson-Scribner, F., 5.  
 Lancaster, D. S., 94.  
 Lancelot, W. H., 58.  
 Landacre, F. L., 83.  
 Landon, C. R., 26.  
 Landon, L. E., 67.  
 Lane, C. H., 30.  
 Lane, D. J., 69.  
 Lane, E. C., 52.  
 Laney, J. C., 31, 44.  
 Lang, H. L., 30, 32.  
 Lang, L., 54.  
 Lang, M. W., 8.  
 Langston, J. M., 24.  
 Langworthy, A. E., 61.  
 Langworthy, C. F., 30, 32.  
 Lanham, W. B., 91.  
 Lantz, D. E., 26.  
 Lantz, G., 99.  
 Lapham, J. E., 23.  
 Lapham, M. H., 23.  
 Larrimer, W. H., 24.  
 Larsen, C., 89.  
 Larsen, H. E., 67.  
 Larsen, L. D., 52.  
 Larson, C. W., 87.  
 Larson, J. E., 85.  
 Larson, M. S., 69.  
 Larson, R. A., 90.  
 Lashbrook, A. J., 8, 95.  
 Lassetter, W. C., 45.  
 Lathrop, E. C., 14.  
 Lathrop, F. H., 80.  
 Latimer, W. J., 23.  
 Latshaw, W. L., 61.  
 Latta, R. W., 8, 77.  
 Latta, W. C., 56.  
 Laude, H. H., 91.  
 Lauman, G. N., 79.  
 Lauterbach, E. G., 54.  
 Law, J. W., 36.  
 Lawrence, E. A., 89.  
 Lawrence, W. E., 85.
- Lawrence, W. H., 72.  
 Laws, A. G., 71.  
 Lawson, D. L., 63.  
 Lawson, J. F., 4.  
 Laycock, W. E., 67.  
 Lazenby, W. R., 83.  
 Lea, E. J., 22, 47.  
 Leach, B. R., 24.  
 Leaming, T. H., 72.  
 Learn, C. D., 84.  
 Le Clair, C. A., 72.  
 Le Clerc, J. A., 21.  
 Lee, C. B., 74.  
 Lee, F. M., 52.  
 Lee, J. A., 16.  
 Lee, J. G., 63.  
 Leech, E., 12.  
 Leeper, L. L., 61.  
 Lees, F., 3.  
 Leete, B. A., 94.  
 Lefevre, E., 20.  
 Lefevre, G., 72.  
 Legge, F. W., 28.  
 Leggett, H. A. D., 93.  
 Lehenbauer, P. A., 75.  
 Lehman, S. G., 81.  
 Lehmann, E. W., 58.  
 Leiby, C. I., 53.  
 Leidigh, A. H., 91.  
 Leighton, V. L., 88.  
 Leighty, C. E., 15.  
 Leighty, W. R., 54.  
 Leith, B. D., 98.  
 Leland, E. W., 79.  
 Leonard, L. T., 14.  
 Leonard, M. D., 79.  
 Lepper, H. A., 19.  
 LeRoy, V. E., 67.  
 Letter, C. R., 17.  
 Levine, B. S., 21.  
 Levine, M., 58.  
 Lewis, A., 46.  
 Lewis, C. I., 85.  
 Lewis, D. E., 61.  
 Lewis, E. J., 80.  
 Lewis, E. M., 66.  
 Lewis, H. D., 84.  
 Lewis, H. G., 23.  
 Lewis, H. R., 76, 77.  
 Lewis, J. V., 76.  
 Lewis, L. L., 84.  
 Lewis, R. H., 34.  
 Lewis, S. L., 85.  
 Lewis, W. K., 8.  
 Libby, H. F., 72.  
 Liepsner, F. W., 21.  
 Liggett, J. A., 32.  
 Ligon, J. S., 26.  
 Lill, J. G., 17.  
 Limbocker, T. F., 48.  
 Linch, L. B., 74.  
 Lindemann, E. C., 67.  
 Lindemuth, J. R., 23.  
 Linder, G., 54.  
 Lindgren, H. A., 18.  
 Lindsey, J. B., 28.  
 Linebaugh, S. W., 28.



- Linfield, F. B., 73, 100.  
 Linford, J. H., 93.  
 Link, G. K. K., 74.  
 Linke, J. A., 56.  
 Linklater, W. A., 95.  
 Linney, C. E., 7.  
 Lintner, W. A., 49.  
 Linton, F. B., 18.  
 Lipman, C. B., 47.  
 Lipman, J. G., 76, 77, 100.  
 Lipp, C. C., 90.  
 Lippincott, A., 36.  
 Lippincott, W. A., 61.  
 Lippitt, W. F., 22.  
 Lipscomb, G. F., 89.  
 Lisher, P. R., 58.  
 List, G. M., 48.  
 Little, W. P., 48.  
 Liverance, W. B., 8.  
 Livermore, K. C., 79.  
 Livingston, A. E., 21.  
 Livingston, C. D., 98.  
 Livingston, G., 36.  
 Lloyd, E. R., 70.  
 Lloyd, J. H., 56.  
 Lloyd, J. T., 79.  
 Lloyd, J. W., 54.  
 Lloyd, O. G., 58.  
 Lloyd, W. A., 32.  
 Lloyd, W. E., 47.  
 Loyde, R. K., 71.  
 Lloyd-Jones, O., 58.  
 Lochry, H. R., 56.  
 Lockett, S., 75.  
 Lockwood, W. P. B., 66.  
 Lodge, W. L., 67.  
 Loeb, C. D., 72.  
 Loftin, U. C., 24.  
 Logan, C. C., 54.  
 Logan, K. R., 58.  
 Logan, W. N., 71.  
 Lohnis, F., 14.  
 Lombard, P. M., 17.  
 Lommel, W. E., 56.  
 Lommen, G., 69.  
 Long, C. L., 76.  
 Long, D. D., 51.  
 Long, W. H., 14.  
 Long, W. W., 88.  
 Longley, A. T., 31, 52.  
 Longley, L. E., 17.  
 Longyear, B. O., 48.  
 Loomis, A. M., 74.  
 Loomis, H., 90.  
 Loomis, H. M., 19.  
 Lopez, F., 87.  
 Lord, E. C. E., 34.  
 Loree, R. E., 67.  
 Lory, C. A., 48, 100.  
 Losh, A. R., 61.  
 Lotter, H. H., 33.  
 Loughridge, R. H., 47.  
 Lounsberry, C., 23.  
 Love, H. H., 79.  
 Loveland, G. A., 7, 74.  
 Lovett, A. L., 85.  
 Lowe, C. D., 90.  
 Lowry, M. M., 96.  
 Lowry, M. W., 51.  
 Lowry, Q. S., 49.  
 Lowry, R. B., 89.  
 Loy, S. K., 99.  
 Lubs, H. A., 8.  
 Lucas, J. B., 94.  
 Ludlum, L. C., 67.  
 Lueder, C. A., 96.  
 Luginbill, P., 24.  
 Luithly, J. A., 58.  
 Lumpkin, J. G., 73.  
 Lumsden, D., 79.  
 Lundgren, L., 13.  
 Lunn, A. G., 66.  
 Lunn, W. M., 15.  
 Lunz, H., 98.  
 Lurie, A., 64.  
 Lusk, W. F., 69.  
 Lute, A. M., 16, 47.  
 Luther, E. L., 98.  
 Lutman, B. F., 93.  
 Lutrell, E., 45.  
 Lyles, T. J., 89.  
 Lyman, J. F., 83.  
 Lyman, R. P., 67.  
 Lynch, J., 22.  
 Lynch, W. D., 20.  
 Lynch, W. H., 33.  
 Lynde, H. M., 34, 81.  
 Lyon, H. L., 52.  
 Lyon, T. L., 79.  
 Lyons, F. R., 33.  
 McAdams, E. E., 91.  
 McAdory, I. S., 43.  
 McAleer, H. A., 21.  
 McAlle, W. R., 52.  
 McAmis, J. C., 90.  
 McArthur, C. L., 45.  
 McAtee, W. L., 26.  
 McBee, J. S., 71.  
 McBeth, I. G., 14.  
 McBride, J. N., 68.  
 McBryde, C. N., 8.  
 McBryde, J. B., 94.  
 McBryde, J. M., 94.  
 McBurney, R., 85.  
 McCain, A. C., 13.  
 McCain, M. J., 85.  
 McCall, A. G., 83.  
 McCall, M. A., 15, 95.  
 McCall, T. M., 69.  
 McCampbell, C. W., 61.  
 McCampbell, E. F., 83.  
 McCandlish, A. C., 58.  
 McCarney, H. E., 56.  
 McCarty, D. M., 81.  
 McCarty, J. A., 56.  
 McCheyne, G. M., 93.  
 McChord, R. C., 56.  
 McClain, J. H., 8.  
 McClelland, C. K., 51.  
 McClelland, T. B., 13, 87.  
 McClintock, J. A., 94.  
 McClintock, J. E., 83.  
 McClung, J. R., 61.  
 McClure, G. M., 83.  
 McClure, H. B., 4.  
 McClurg, N., 61.  
 McClymonds, A. E., 61.  
 McCulloch, J. W., 61.  
 McCollum, E. V., 98.  
 McComb, H. A., 74.  
 McConnell, O. J., 35, 38.  
 McConnell, W. R., 24.  
 McConville, A. H., 4.  
 McCool, M. M., 68.  
 McCormick, E. B., 34.  
 McCormick, F. A., 74.  
 McCrary, M. L., 85.  
 McCray, A. H., 25.  
 McCreary, O., 80.  
 McCrory, S. H., 34.  
 McCue, C. A., 49.  
 McCuen, G. W., 83.  
 McCulloch, A. C., 85.  
 McCulloch, L., 13.  
 McCulloch, T. B., 69.  
 McCurdy, J. C., 79.  
 McDaniel, E. I., 68.  
 McDaniel, J. S., 68.  
 McDonald, E. M., 72.  
 McDonald, M., 58.  
 McDonald, M. C., 82.  
 McDonnell, C. C., 20.  
 McDonnell, H. B., 65.  
 McDonough, F. L., 24.  
 McDowell, J. C., 4.  
 McDowell, M., 69.  
 McDowell, M. S., 86.  
 McElroy, C. H., 84.  
 McFarland, C. M., 95.  
 McFarland, F. T., 62.  
 McFarlin, J. W., 62.  
 McGee, E. L., 92.  
 McGee, W. J., 21.  
 McGehee, T. F., 24.  
 McGinnis, N. M., 91.  
 McGinty, R. A., 48.  
 McGowan, D. F., 4.  
 McGregor, E. A., 24.  
 McGregor, K., 58.  
 McGuire, A. J., 69.  
 McGuire, L., 83.  
 McHargue, J. S., 62.  
 McHatton, T. H., 51.  
 McHugh, J. K., 63.  
 McIlhinney, A., 95.  
 McIlwain, D. W., 71.  
 McIndoo, N. E., 24.  
 McInerny, T. J., 79.  
 McIntire, W. H., 90.  
 McIntosh, C. J., 85.  
 McIntyre, E. R., 98.  
 McKay, A. B., 71.  
 McKay, J. F., 71.  
 McKay, L. J., 71.  
 McKay, M. B., 14.  
 McKay, V. W., 14.  
 McKee, C., 58.  
 McKee, R., 16.  
 McKee, R. H., 64.  
 McKellip, I., 8, 83.

- McKenney, R. E. B., 13.  
 McKenzie, T. P., 13.  
 McKerrow, W. A., 8, 69.  
 McKimmon, Mrs. C., 81.  
 McKnight, H. L., 91.  
 McKune, E. F., 48.  
 McLane, J. W., 16.  
 McLaughlin, A. J., 22.  
 McLaughlin, F. A., 66.  
 McLaughlin, H. M., 58.  
 McLaughlin, W. W., 34.  
 McLean, H. C., 76.  
 McLendon, W. E., 23.  
 McLeod, J. H., 45.  
 McLurkin, C. P., 46.  
 McMillan, H. G., 14.  
 McMillan, J. G., 74.  
 McMillan, S. A., 91.  
 McMiller, P. R., 69.  
 McMurdo, G. A., 15.  
 McMurran, S. M., 14.  
 McMurtray, H. D., 71.  
 McNair, A. D., 4.  
 McNall, P. E., 61.  
 McNeal, W. B., 58.  
 McNeill, A. R., 56.  
 McNess, G. T., 91.  
 McNutt, J. C., 66.  
 McPheeters, W. H., 91.  
 McPherson, W., 83.  
 McQuarrie, C. K., 50.  
 McRae, W. A., 22.  
 McVeety, E., 82.  
 McWilliams, J. E., 99.  
 Mabbott, D. C., 26.  
 Maberry, E. N., 64.  
 MacCaughy, V., 52.  
 MacComber, O. B., 69.  
 MacDaniels, L. H., 79.  
 MacDonald, B. I., 76.  
 MacDonald, G. B., 58.  
 MacDonald, M. B., 87.  
 MacDonald, P., 87.  
 Macfarlane, J., 76.  
 Macfarlane, W., 84.  
 Mack, M. E., 75.  
 Mack, W. B., 75.  
 MacKay, C. J., 58.  
 MacKaye, B., 12.  
 MacKellar, W. M., 8.  
 MacKinnon, J. G., 58.  
 Mackintosh, R. S., 69.  
 Macklin, T., 61.  
 Macpherson, H., 36, 85.  
 Madson, B. A., 47.  
 Magee, W. T., 91.  
 Magness, J. R., 85.  
 Magoon, C. A., 95.  
 Magruder, D. C., 18.  
 Mair, W. M., 90.  
 Mairs, T. I., 87.  
 Major, H. F., 72.  
 Malde, O. G., 98.  
 Manerval, W. E., 72.  
 Maney, T. J., 58.  
 Mangan, W. J., 10.  
 Mangels, C. E., 72.  
 Mann, A., 16.  
 Mann, A. R., 79.  
 Mann, C. W., 17.  
 Manning, H., 98.  
 Manns, T. F., 49.  
 Manter, J. A., 49.  
 Marbut, C. F., 23.  
 Marden, J. W., 72.  
 Maring, D. T., 6.  
 Maris, P. V., 85.  
 Mark, C. G., 83.  
 Markell, E. L., 17.  
 Markey, W. E., 98.  
 Markley, J. P., 84.  
 Marlatt, A. L., 98.  
 Marlatt, C. L., 23, 24, 39, 100.  
 Marquis, F. M., 47.  
 Marr, J. C., 34.  
 Marsden, R. D., 34.  
 Marsh, C. D., 9.  
 Marsh, H., 9.  
 Marsh, H. O., 25.  
 Marshall, B. J., 71.  
 Marshall, C. E., 66.  
 Marshall, C. G., 14.  
 Marshall, F. R., 7.  
 Marshall, G. D., 33.  
 Marshall, J. A., 93.  
 Marshall, J. D., 48.  
 Marshall, L. K., 47.  
 Marshall, R. E., 85.  
 Marsteller, R. P., 91.  
 Martin, D. W., 81.  
 Martin, G. H., jr., 95.  
 Martin, G. L., 73.  
 Martin, J. G., 37, 38.  
 Martin, J. H., 15.  
 Martin, J. N., 58.  
 Martin, J. P., 13.  
 Martin, L., 94.  
 Martin, L. H., 35.  
 Martin, O. B., 31.  
 Martin, W. H., 77.  
 Marvin, C. F., 5.  
 Mason, A. F., 87.  
 Mason, C. J., 49.  
 Mason, D. T., 47.  
 Mason, P. W., 56.  
 Mason, R. H., 8.  
 Mason, S. C., 14.  
 Massey, A. B., 43.  
 Massey, L. M., 79.  
 Mastin, M. G., 19.  
 Mather, S., 61.  
 Matheson, K. J., 8.  
 Matheson, R., 79.  
 Mathews, C. W., 62.  
 Mathews, H. B., 90.  
 Mathews, O. R., 17.  
 Mathewson, E. H., 15, 81.  
 Mathis, F. K., 84.  
 Matthew, R., 77.  
 Matthews, C. D., 81.  
 Matthews, M. L., 56.  
 Matthews, W. C., 47.  
 Matthews, W. S., 22.  
 Mattill, H. A., 47.  
 Mattoon, W. R., 12.  
 Mattson, D. F., 56.  
 Matz, J., 50.  
 Maughan, H. J., 93.  
 Maxon, E. T., 23.  
 Maxson, R. N., 62.  
 Maxwell, E. G., 74.  
 May, D. W., 31, 87.  
 Mayberry, M., 47.  
 Maynard, E. J., 77.  
 Maynard, L. A., 79.  
 Mayne, D. D., 69.  
 Mays, M. L., 89.  
 Maystead, I. K., 68.  
 Meacham, F. T., 81.  
 Mead, E., 47.  
 Meade, D., 79.  
 Meade, R. M., 14.  
 Meadows, W. R., 37, 38.  
 Mebane, A. L., 81.  
 Meeers, E. E., 88.  
 Meehan, T. A., 8, 90.  
 Meek, E. B., 87.  
 Meeker, F. N., 84.  
 Meekins, T. S., 28.  
 Meeks, J. R., 77.  
 Mehaffey, E. E., 76.  
 Meigs, E. B., 8.  
 Meinecke, E. P., 14.  
 Melander, A. L., 95.  
 Melchers, L. E., 61.  
 Melhus, I. E., 58.  
 Meloy, G. S., 14.  
 Meltzer, W. D., 68.  
 Melvin, A. D., 7.  
 Menagh, C. S., 26.  
 Menardi, J. B., jr., 75.  
 Menderson, N., 18.  
 Menge, C. A., 8.  
 Menig, O., 95.  
 Mensching, J. E., 87.  
 Menville, R. L., 63.  
 Mercer, J. E., 27.  
 Mercer, W. H., 82.  
 Mercier, W. B., 31.  
 Merkle, F. G., 66.  
 Merkle, G. E., 88.  
 Merrill, B. G., 28.  
 Merrill, D. E., 77.  
 Merrill, F. S., 61.  
 Merrill, J. H., 61.  
 Merrill, J. L., 16.  
 Merrill, L. A., 93.  
 Merrill, L. H., 64.  
 Merrill, L. S., 64.  
 Merrill, O. C., 10.  
 Merrill, T. C., 18.  
 Merritt, E., 30.  
 Merrow, H. L., 88.  
 Mertz, W. M., 47.  
 Mervine, E. M., 58.  
 Merz, A. R., 23.  
 Merserve, C. A., 22, 45.  
 Meske, A. E., 76.  
 Metcalf, C. L., 83.  
 Metcalf, F. P., 79.  
 Metcalf, H., 14.

- Metcalf, W., 47.  
 Metcalf, Z. P., 81.  
 Metzger, J. E., 65.  
 Metzger, M. E., 45.  
 Meunch, O. B., 72.  
 Meyer, A. J., 71.  
 Meyer, F. N., 18.  
 Meyer, H. F., 37.  
 Meyer, W. E., 8.  
 Meyers, P. T., 90.  
 Michaels, R. E., 84.  
 Michel, C. W., 90.  
 Mickle, J. D., 22.  
 Middaugh, T. R., 84.  
 Middleton, W., 25.  
 Milam, A. B., 85.  
 Milbrath, D. G., 82.  
 Miles, F. C., 16.  
 Miles, G. F., 17.  
 Miles, P. B., 24.  
 Millar, C. E., 68.  
 Millen, F. E., 68.  
 Miller, A. M., 62.  
 Miller, A. W., 8.  
 Miller, C., 58.  
 Miller, C. F. (N. C.), 81.  
 Miller, C. F. (U. S. D. A.), 23.  
 Miller, C. J., 98.  
 Miller, D. G., 34.  
 Miller, E. C., 61.  
 Miller, E. J., 68.  
 Miller, F. E., 17.  
 Miller, F. G., 95.  
 Miller, G. E., 82.  
 Miller, G. H., 4.  
 Miller, H. A., 4.  
 Miller, H. M. A., 45.  
 Miller, J. H., 45, 100.  
 Miller, J. M., 25.  
 Miller, Mrs. K. S., 58.  
 Miller, M. B., 56.  
 Miller, M. F., 72.  
 Miller, M. R., 47.  
 Miller, O. C., 61.  
 Miller, P. C., 77.  
 Miller, P. E., 69.  
 Miller, R. C., 15.  
 Miller, R. F., 47.  
 Miller, R. N. (U. S. D. A.), 20.  
 Miller, R. N. (Wis.), 95.  
 Miller, S. H., 71.  
 Miller, S. P., 90.  
 Miller, W., 54.  
 Milliken, F. B., 25.  
 Mills, H. C., 56.  
 Mills, T. B., jr., 38.  
 Mills, W. O., 56.  
 Mills, Z. E., 75.  
 Milner, R. D., 32.  
 Milton, R. H., 15, 90.  
 Milward, J. G., 98.  
 Miner, J. R., 64.  
 Minkler, F. C., 76, 77.  
 Minns, L. A., 79.  
 Misner, E. G., 79.  
 Mitchell, A. J., 7.  
 Mitchell, A. S., 18.  
 Mitchell, H. H., 54.  
 Mitchell, J. D., 24.  
 Mitchell, J. H., 89.  
 Mitchell, J. R., 62.  
 Mitchell, R. P., 64.  
 Mitchell, R. V., 76.  
 Mitchell, S. C., 49.  
 Mix, A. J., 80.  
 Mohler, J. R., 7, 100.  
 Moist, A. R., 63.  
 Monahan, A. C., 100.  
 Monahan, W. C., 64.  
 Monohon, P. W., 64.  
 Monroe, E., 72.  
 Monsch, H., 58.  
 Montague, E. J., 61.  
 Montgomery, C. W., 84.  
 Montgomery, E. G., 79.  
 Montgomery, F., 4.  
 Montgomery, H. M., 58.  
 Montgomery, J. S., 69.  
 Montgomery, L. M., 83.  
 Montillon, E. D., 79.  
 Moody, H. W., 71.  
 Mooers, C. A., 90.  
 Moomaw, C. W., 35, 39.  
 Moomaw, L., 16.  
 Mooney, C. N., 23.  
 Moore, B., 85.  
 Moore, C., 85.  
 Moore, J. G., 98.  
 Moore, J. N., 47.  
 Moore, J. S., 71.  
 Moore, L. H., 44.  
 Moore, M. D., 30.  
 Moore, P., 53.  
 Moore, R. A., 98.  
 Moore, R. S., 28.  
 Moore, W., 69.  
 Moorefield, C. H., 33.  
 Moorhead, M. B., 69.  
 Moorhouse, H. W., 84.  
 Moorhouse, L. A., 4.  
 Mooring, D. C., 84.  
 Moran, C., 76.  
 Moran, J. S., 38.  
 Moran, T. F., 93.  
 Morbeck, G. C., 58.  
 Mordoff, W. E., 79.  
 More, C. T., 35, 39.  
 More, S. B., 58.  
 Morehouse, A. D., 34.  
 Moreland, C. C., 63.  
 Moreland, C. F., 63.  
 Moreland, R. W., 24.  
 Morgan, A. C., 24.  
 Morgan, A. F., 47.  
 Morgan, D. G., 84.  
 Morgan, D. N., 47.  
 Morgan, E. L., 66.  
 Morgan, F. P., 18.  
 Morgan, G. W., 17.  
 Morgan, H. A., 90.  
 Morgan, H. J., 18.  
 Morgan, J. D., 15.  
 Morgan, J. F., 68.  
 Morgan, J. O., 91.  
 Morgan, L. E., 84.  
 Morgan, W. J., 20.  
 Morison, A. T., 54.  
 Morison, C. B., 49.  
 Morkel, W. A. K., 54.  
 Morr, E. C., 84.  
 Morrell, F. W., 13.  
 Morrey, C. B., 83.  
 Morrill, A. W., 45.  
 Morrill, W. J., 48.  
 Morris, C. C., 33.  
 Morris, C. K., 68.  
 Morris, E. L. (Cal.), 47.  
 Morris, E. L. (U.S.D.A.), 15.  
 Morris, H., 63.  
 Morris, H. E., 73.  
 Morris, O. M., 95.  
 Morrison, A. B., 26.  
 Morrison, F. B., 98.  
 Morrison, J. D., 15, 90.  
 Morrison, T. M., 23.  
 Morrow, H. E., 45.  
 Morse, A. P., 69.  
 Morse, F. W., 66.  
 Morse, G. B., 9.  
 Morse, S. F., 45.  
 Morse, W. J. (Me.), 64.  
 Morse, W. J. (U.S.D.A.), 16.  
 Mortensen, M., 58.  
 Mortimer, G. B., 98.  
 Mortland, I., 63.  
 Morton, A., 69.  
 Morton, G. E., 48.  
 Morton, O. A., 66.  
 Moseley, R. S., 79.  
 Moseley, T. W., 8.  
 Mosher, F. H., 26.  
 Mosher, H. H., 75.  
 Mosher, W. E., 17.  
 Mosier, J. G., 54.  
 Moss, A. E., 49.  
 Moss, E. G., 15, 81.  
 Moss, M., 8.  
 Mote, D. C., 84.  
 Motl, D., 69.  
 Moton, R. R., 44.  
 Moulton, C. R., 72.  
 Moulton, L. H., 79.  
 Mowry, H. H., 4.  
 Mowry, J. L., 69.  
 Mudd, A. I., 28.  
 Mugg, H. C., 56.  
 Muir, F., 52.  
 Mulford, F. L., 17.  
 Mulford, W., 47.  
 Mullen, J. R., 81.  
 Mulsow, F. W., 95.  
 Mulvania, M., 90.  
 Mumford, E., 68.  
 Mumford, F. B., 71, 100.  
 Mumford, H. W., 54.  
 Muncie, F. W., 54.  
 Muncie, J. H., 68.  
 Mundell, J. E., 16.  
 Mundy, E. B., 72.

- Munger, H. B., 58.  
 Munn, M. T., 80.  
 Munro, W., 26.  
 Munroe, J. U., 6.  
 Murdock, H. E., 73.  
 Murphree, A. A., 50.  
 Murphy, H. S., 58.  
 Murphy, L. S., 11.  
 Murphy, R. M., 90.  
 Murphy, R. V., 61.  
 Murray, C., 58.  
 Murray, F. E., 8.  
 Murray, N. A., 96.  
 Murray, N. C., 29.  
 Murray, T. J., 94.  
 Musbach, F. L., 98.  
 Mussehl, F. E., 61.  
 Musselman, H. H., 68.  
 Musser, K. B., 8, 49.  
 Mutchler, F., 62.  
 Myer, D. S., 62.  
 Myers, C. E., 87.  
 Myers, C. H., 79.  
 Myers, P. R., 24.  
 Myers, W. I., 79.  
 Nabours, R. K., 61.  
 Nahstoll, G. A., 36.  
 Naquin, W. P., 52.  
 Nash, E. H., 66.  
 Naylor, N. M., 58.  
 Neal, J. W., 31, 44.  
 Neal, R. T., 94.  
 Neale, A. S., 61.  
 Nealon, E. J., 20.  
 Needham, J. G., 79.  
 Needham, R. H., 61.  
 Neel, L. R., 90.  
 Neff, C. E., 72.  
 Negley, N. A., 8.  
 Nehrling, A. H., 66.  
 Neldig, R. E., 53.  
 Neiland, L. T., 50.  
 Nellis, J. C., 12.  
 Nelson, A., 99.  
 Nelson, C. I., 82.  
 Nelson, E. K., 19.  
 Nelson, E. W., 26, 27.  
 Nelson, H. W., 71.  
 Nelson, J., 76.  
 Nelson, J. A., 25.  
 Nelson, J. B., 73.  
 Nelson, J. W. (Cal.), 47.  
 Nelson, J. W. (U.S.D.A.), 11.  
 Nelson, M., 45.  
 Nelson, N. L., 58.  
 Nelson, N. L. T., 50.  
 Nelson, O. M., 85.  
 Nelson, P., 31, 52.  
 Nelson, S. B., 95.  
 Nelson, V. E., 98.  
 Nelson, W. P., jr., 91.  
 Nelson, W. S., 71.  
 Nesom, G. E., 63.  
 Ness, H., 91.  
 Netherton, T. M., 48.  
 Neuls, J. D., 24.  
 Nevens, W. B., 54.  
 Nevius, W. J., 28.  
 Newbill, T. J., 95.  
 Newcomb, M. J., 87.  
 Newcomer, E. J., 24.  
 Newell, C. R., 54.  
 Newlander, C. E., 68.  
 Newlin, C. I., 54.  
 Newlin, J. A., 12.  
 Newlon, H. G., 72.  
 Newman, C. C., 89.  
 Newman, C. L., 81.  
 Newman, P. J., 61.  
 Newsom, I. E., 48.  
 Newton, H. D., 49.  
 Newton, J. O., 82.  
 Newton, R. L., 37.  
 Nicholls, W. D., 62.  
 Nichols, W. D., 35.  
 Nicholson, J. F., 45.  
 Nicolet, T. W., 74.  
 Nighbert, E. M., 8.  
 Niles, W. B., 8.  
 Niswonger, H. R., 62.  
 Niven, C. F., 89.  
 Nixon, R. L., 37.  
 Noble, E. C., 74.  
 Nolan, A. W., 54.  
 Noll, C. F., 87.  
 Nollau, E. H., 30.  
 Norcross, C. A., 75.  
 Norcross, T. W., 10.  
 Norman, C. A., 56.  
 Norris, R. S., 52.  
 North, H. B., 76.  
 North, K. S., 82.  
 North, W. R., jr., 20.  
 Northrop, L. Z., 68.  
 Norton, J. B., 14.  
 Norton, J. B. S., 65.  
 Norwood, F. J., 71.  
 Noteware, I. R., 68.  
 Nougaret, R. L., 24.  
 Noyes, G. H., 7.  
 Noyes, H. A., 56.  
 Nuckols, S. B., 17.  
 Nunn, R., 7.  
 Nutter, J. W., 62.  
 Nye, C., 79.  
 Nye, H. L., 74.  
 Nystrom, A. B., 95.  
 Oakleaf, H. B., 13.  
 Oakley, R. A., 16, 17.  
 Oates, M. B., 4.  
 Oberholser, H. C., 27.  
 Oberlin, M. L., 48.  
 Obold, L. J., 87.  
 O'Brien, H. R., 58.  
 O'Brien, W. J., 23.  
 Obst, M. M., 20.  
 Odell, F. L., 8, 58.  
 O'Donnell, R. F., 58.  
 Ogaard, A. J., 17, 82.  
 Ogden, E. L., 30.  
 Ogle, G. L., 56.  
 Oglesby, W. F., 47.  
 Ohlsen, E. V., 74.  
 O'Kane, W. C., 76.  
 Okey, C. W., 34.  
 Okey, M., 83.  
 O'Leary, E. B., 23.  
 O'Leary, W. J., 32.  
 Oliver, A. G., 81.  
 Oliver, G. L., 8, 96.  
 Oliver, G. W., 18.  
 Oliver, M. B., 96.  
 Olmstead, L. B., 23.  
 Olsen, A. M., 58.  
 Olsen, J. C., 91.  
 Olson, A. S., 69.  
 Olson, G. A., 95.  
 Olson, M. E., 58.  
 Olson, N. E., 61.  
 Olson, O., 15.  
 Olson, P. J., 69.  
 O'Neal, A. T., 63.  
 Onsrud, E. A., 8.  
 Oosterhuis, A. C., 98.  
 Opperman, C. L., 65.  
 Ort, E., 74.  
 Orton, C. R., 87.  
 Orton, W. A., 14, 39.  
 Osborn, G. A., 76.  
 Osborn, H., 83.  
 Osborn, H. T., 52.  
 Osborn, L. W., 45.  
 Osborn, M. G., 63.  
 Osborn, W. M., 17.  
 Osborne, E. L., 64.  
 Osborne, T. B., 49.  
 Oshel, O. I., 8, 56.  
 Oskamp, J., 56.  
 Osler, H. S., 64.  
 Osmun, A. V., 66.  
 Osner, G. A., 56.  
 Ostrander, J. E., 66.  
 Oswald, W. L., 69.  
 Otis, C. H., 76.  
 Otis, D. H., 98.  
 O'Toole, S., 82.  
 Ousley, C., 91.  
 Overholser, E. L., 79.  
 Overholt, V., 83.  
 Overholts, L. O., 87.  
 Overly, F. L., 58.  
 Overstreet, J. B., 91.  
 Owen, E. J., 76.  
 Owen, F. D., 81.  
 Owen, T. M., 8.  
 Owen, W. L., 63.  
 Owens, C. E., 85.  
 Pace, E. S., 50.  
 Pacetti, B. J., 27.  
 Packard, C. M., 24.  
 Packard, W. E., 47.  
 Paddock, F. B., 91.  
 Paddock, W., 83.  
 Page, I. E., 85.  
 Page, L. W., 32.  
 Page, W. B., 23.  
 Paige, E. O., 50.  
 Paige, J. B., 66.



- Pallthrop, R. R., 50.  
 Paine, H. C., 56.  
 Paine, H. S., 19.  
 Paine, J. H. (Oreg.), 85.  
 Paine, J. H. (U. S. D. A.), 24.  
 Painter, H. R., 84.  
 Palen, A. E., 33.  
 Palkin, S., 19.  
 Palmer, C. C., 69.  
 Palmer, G. A., 61.  
 Palmer, H. E., 20.  
 Palmer, L. S., 72.  
 Palmer, M. A., 48.  
 Palmer, T. S., 27.  
 Palmer, W. C., 82.  
 Palmer, W. H., 83.  
 Palmer, W. K., 54.  
 Palmer, W. R., 56.  
 Palmore, J. I., 19.  
 Pammel, L. H., 58.  
 Park, J. W., 35.  
 Parke, L. S., 45.  
 Parker, F. L., 50.  
 Parker, H. L., 24.  
 Parker, J. H., 15.  
 Parker, J. R., 73.  
 Parker, O., 44.  
 Parks, G. H., 9.  
 Parks, K. E., 8.  
 Parks, P. C., 44.  
 Parman, D. C., 25.  
 Parmelee, A. E., 91.  
 Parrish, C., 93.  
 Parrish, G. R., 94.  
 Parrott, P. J., 80.  
 Parry, H. S., 33.  
 Parshall, R. L., 43.  
 Parsons, H. T., 98.  
 Parsons, M. E., 54.  
 Parsons, T. S., 99.  
 Patch, E. M., 64.  
 Pate, H. O., 71.  
 Pate, R. H., 71.  
 Pate, W. F., 81.  
 Paterson, A. G., 95.  
 Paterson, A. M., 61.  
 Paterson, T. G., 69.  
 Patrick, A. L., 23.  
 Patrick, G. E., 19.  
 Patt, E., 56.  
 Patten, A. J., 22, 68.  
 Patten, C. A., 84.  
 Patten, C. G., 17.  
 Patten, H. E., 18.  
 Patterson, F. W., 13.  
 Patterson, H. J., 65.  
 Patterson, S. W., 64.  
 Patterson, T. M., 71.  
 Patton, L., 21.  
 Pauls, J. T., 33.  
 Paxman, J. W., 93.  
 Payne, L. F., 66.  
 Peacock, W. M., 79.  
 Peairs, L. M., 96.  
 Pearce, J. R., 16.  
 Pearce, S. D., 91.  
 Pearl, R., 39, 64, 100.  
 Pearse, R. J., 58.  
 Pearson, F. A., 54.  
 Pearson, R. A., 57, 100.  
 Peck, A. L., 85.  
 Peck, A. S., 10.  
 Peck, F. W., 70.  
 Peck, G. W., 79.  
 Peck, H. E., 88.  
 Peck, R. A., 45.  
 Peer, H., 85.  
 Pegg, E. C., 72.  
 Peirce, V. M., 33, 34.  
 Peiser, K., 61.  
 Peitersen, A. K., 93.  
 Peltier, G. L., 54.  
 Pember, F. R., 88.  
 Pemberton, C. E., 25.  
 Pence, M. L., 62.  
 Pencost, C. L., 72.  
 Pennington, M. E., 21.  
 Pennington, W. E., 24.  
 Pennock, O., 48.  
 Penny, C. L., 50.  
 Pennybacker, J. E., 33.  
 Peppard, L. L., 68.  
 Percival, O., 54.  
 Pergande, T., 26.  
 Perisho, E. C., 89.  
 Perkins, A. E. (Miss.), 71.  
 Perkins, A. E. (Ohio), 84.  
 Perkins, E. H., 88.  
 Perkins, H. F., 93.  
 Perkins, R. C. L., 52.  
 Perkins, S. O., 81.  
 Perkins, W. R., 63.  
 Ferley, G. A., 76.  
 Person, F. G., 48.  
 Feteet, W., 91.  
 Peter, A. M., 62.  
 Peters, C. A., 66.  
 Peters, J. G., 11.  
 Peters, W. H., 82.  
 Petersen, T. C., 33.  
 Peterson, C. E., 17.  
 Peterson, E. G., 92.  
 Peterson, H., 74.  
 Peterson, O., 93.  
 Peterson, P. P., 53.  
 Peterson, R. M., 35.  
 Peterson, W., 93.  
 Peterson, W. A., 16.  
 Peterson, W. H., 98.  
 Petry, E. J., 56.  
 Pettee, C. H., 76.  
 Pettit, M. J., 58.  
 Pettit, R. H., 68.  
 Pevy, W. P., 71.  
 Pew, I. W., 9.  
 Pew, W. H., 59.  
 Pfaender, M., 17.  
 Pfanstiel, R., 62.  
 Pflueger, O. W., 83.  
 Phelan, J., 66.  
 Phelps, E. L., 70.  
 Phelps, I. K., 20.  
 Phillips, A. G., 56.  
 Phillips, E. F., 25.  
 Phillips, H. D., 79.  
 Phillips, J. V., 34.  
 Phillips, R. M., 95.  
 Phillips, T. D., 83.  
 Phillips, T. G., 83.  
 Phillips, W. J., 24.  
 Philo, F., 59.  
 Pickel, F. W., 45.  
 Pickel, J. M., 81.  
 Pickens, J. M., 10.  
 Pickerill, H. M., 79.  
 Pickett, B. S., 54.  
 Pickett, C. J., 44.  
 Pickett, F. L., 95.  
 Piemeisel, F. J., 15, 70.  
 Piemeisel, R. L., 16.  
 Pier, H. B., 74.  
 Pierce, H. C., 21.  
 Pierce, L., 14.  
 Pierce, R. G., 14.  
 Pierce, W. D., 24.  
 Pierson, A. H., 12.  
 Pieters, A. J., 16.  
 Pilkington, B., 86.  
 Pillsbury, J. J., 26.  
 Pillsbury, J. P., 81.  
 Pinckney, R. M., 74.  
 Pinckney, S. M., 89.  
 Pinnell, W. R., 62.  
 Pipal, F. J., 56.  
 Piper, C. V., 16.  
 Piper, H. A., 21.  
 Piper, S. E., 26.  
 Pistor, A. J., 9.  
 Pittier, H., 14.  
 Pitz, W., 98.  
 Plage, H. J., 59.  
 Plaisance, G. P., 59.  
 Plank, H. K., 24.  
 Platt, C. E., 86.  
 Platts, C., 64.  
 Plum, H. M., 75.  
 Plumb, C. S., 83.  
 Plummer, J. K., 81.  
 Poats, T. G., 89.  
 Poe, H. T., jr., 37.  
 Pollard, A. D., 44.  
 Pollard, A. M., 50.  
 Pomeroy, C. S., 17.  
 Pomeroy, J. C., 59.  
 Pontius, R. L., 62.  
 Poole, J. P., 61.  
 Pooler, F. C. W., 13.  
 Pope, G. W., 9.  
 Popenoe, C. H., 25.  
 Popenoe, W., 18.  
 Porte, W. S., 77.  
 Porter, C. S., 62.  
 Porter, C. W. (Iowa), 59.  
 Porter, C. W. (Utah), 93.  
 Porter, J. T., 90.  
 Porter, W. R., 82.  
 Posey, G. B., 86.  
 Posson, R. J., 8, 56.  
 Postle, S. A., 18.  
 Potter, A. A., 15.

- Potter, A. F., 10, 11.  
 Potter, E. L., 86.  
 Potter, G. F., 98.  
 Potter, G. M., 9.  
 Potter, O., 70.  
 Potter, R. S., 59.  
 Potter, S. M., 50.  
 Potter, W. R. R., 52.  
 Potts, A. T., 91.  
 Potts, R. C., 37.  
 Pou, R. L., 8, 91.  
 Poulter, A., 61.  
 Powell, O., 31.  
 Powell, O. N., 33.  
 Powell, P. P., 43.  
 Powell, S. V., 71.  
 Powell, T. F., 36.  
 Powers, W. H., 90.  
 Powers, W. L., 86.  
 Prats, E. L., 87.  
 Pratt, C. D., 94.  
 Pratt, F. R., 76.  
 Pratt, H. E., 31, 44.  
 Pratt, M. B., 47.  
 Pratt, O. A., 14.  
 Prattis, P. L., 94.  
 Preble, E. A., 27.  
 Prentice, B. N., 56.  
 Preston, H. A., 26.  
 Preston, J. F., 13.  
 Price, D. J., 19.  
 Price, H. L., 93.  
 Price, J. C. C., 43.  
 Price, J. D., 22.  
 Price, J. M., 50.  
 Price, J. N., 95.  
 Price, R. B., 72.  
 Price, W. A., 56.  
 Pridmore, J. C., 90.  
 Prien, O. L., 99.  
 Prillerman, B., 96.  
 Prince, F. S., 76.  
 Pritchard, F. J., 14.  
 Pritchard, F. P., 34.  
 Pritchett, K. A., 65.  
 Pritchett, L. F., 43.  
 Pritchett, V. C., 81.  
 Proctor, L. G., 51.  
 Propps, D. H., 8, 75.  
 Prosser, C. S., 83.  
 Proudley, C. E., 34.  
 Proulx, E. G., 56.  
 Prucha, M. J., 54.  
 Publow, H. L., 68.  
 Pugsley, C. W., 74, 100.  
 Purcell, B. L., 22.  
 Pursell, U. G., 7.  
 Puryear, C., 91.  
 Putnam, J. J., 53.  
 Putney, F. S., 87.  
 Pyle, C. A., 61.  
 Pyles, O. D., 44.  
 Quaife, E. L., 66.  
 Quantance, A. L., 24, 39.  
 Quantz, K. E. E., 94.  
 Quayle, H. J., 47.  
 Quereau, F. C., 63.  
 Quick, W. C., 17.  
 Quiggle, E. B., 4.  
 Quine, M. R., 61.  
 Quinerly, J. P., 8, 43.  
 Quinn, E. J., 74.  
 Quintero, J., 77.  
 Rabak, F., 15.  
 Rabild, H., 8.  
 Raburn, G. E., 61.  
 Rachford, C. E., 13.  
 Rae, R. M., 59.  
 Ragsdale, A. C., 96.  
 Raiford, L. C., 84.  
 Ralston, G. S., 94.  
 Ramsay, R. A., 8.  
 Ramser, C. E., 34.  
 Ramsey, G. B., 64.  
 Ramsey, H. J., 17.  
 Ramsower, H. C., 83.  
 Ranck, E. M., 71.  
 Rand, F. V., 13.  
 Rand, J. B., 72.  
 Randell, R. R., 10.  
 Randlett, G. W., 89.  
 Randolph, R. B. F., 22.  
 Rane, F. W., 66.  
 Rankin, F. H., 54.  
 Rankin, J. M., 18.  
 Rankin, J. O., 72.  
 Rankin, W. H., 79.  
 Ransford, A., 68.  
 Ransom, B. H., 9.  
 Ransom, J. H., 56.  
 Rasmussen, F., 76.  
 Rast, F. M., jr., 50.  
 Rast, L. E., 51.  
 Ratcliff, J. A., 75.  
 Rather, J. B., 45.  
 Raven, P. E., 68.  
 Raven, W. F., 68.  
 Rawl, B. H., 8.  
 Ray, G. S., 53.  
 Ray, H. C., 85.  
 Rayner, O. S., 48.  
 Read, E. A., 20.  
 Reade, J. M., 51.  
 Reavis, G. W., 72.  
 Recknagel, A. B., 79.  
 Records, E., 75.  
 Reddell, T. M., 91.  
 Reddick, D., 79.  
 Redenbaugh, H. E., 84.  
 Redhead, J. A., 63.  
 Redman, R. W., 64.  
 Reed, A. J., 8, 81.  
 Reed, C. A., 17.  
 Reed, C. O., 54.  
 Reed, C. P., 68.  
 Reed, E. L., 91.  
 Reed, E. O., 20.  
 Reed, E. P., 80.  
 Reed, F. H., 68.  
 Reed, F. W., 13.  
 Reed, G. M., 72.  
 Reed, H. R., 16.  
 Reed, H. S., 47.  
 Reed, J. B., 20.  
 Reed, N. E., 61.  
 Reed, O. E., 61.  
 Reed, R. C., 50.  
 Reed, T. C., 72.  
 Reed, W. G., 4.  
 Reeder, G., 7, 72.  
 Rees, C. C., 56.  
 Rees, H. L., 95.  
 Rees, R. W., 66.  
 Reese, A. M., 96.  
 Reese, L. F., 87.  
 Reese, M. J., 43.  
 Reese, R. M., 3.  
 Reese, T. B., 92.  
 Reeve, C. S., 34.  
 Reeves, A. R., 46.  
 Reeves, G. I., 24.  
 Reeves, M., 71.  
 Regan, S. A., 15.  
 Regan, W. M., 75.  
 Regan, W. S., 66.  
 Regt, A. C. de, 76.  
 Reid, C. B., 81.  
 Reid, F. R., 14.  
 Reid, H. W., 59.  
 Reimer, F. C., 86.  
 Reiner, F., 76.  
 Reinking, A. E., 20.  
 Reinking, O. A., 48.  
 Reisner, E. H., 61.  
 Remington, R. E., 82.  
 Renshaw, R. R., 59.  
 Rentschler, H. C., 72.  
 Ressler, I. L., 59.  
 Rettger, L. F., 49.  
 Raymond, J. J., 63.  
 Reynolds, B. A., 26.  
 Reynolds, E. B., 92.  
 Reynolds, E. S., 82.  
 Reynolds, M. H., 70.  
 Reynolds, N. A., 62.  
 Reynolds, R. E., 86.  
 Reynolds, R. V. R., 11.  
 Rhodes, L., 92.  
 Rhodes, W. H., jr., 33.  
 Rhue, S. N., 84.  
 Rice, A. G., 22.  
 Rice, F. E., 79.  
 Rice, J. B., 54.  
 Rice, J. E., 79.  
 Rice, J. H., jr., 28.  
 Rice, M. L., 39.  
 Rice, T. D., 23.  
 Rich, F. A., 93.  
 Richards, B. L., 93.  
 Richards, M. W., 56.  
 Richardson, A. G. G., 83.  
 Richardson, A. W., 64.  
 Richardson, C. H., 76.  
 Richardson, E. S., 63.  
 Richardson, H. B., 37.  
 Richardson, J., 83.  
 Richardson, L., 93.  
 Richardson, M. B., 59.  
 Richey, F. C., 54.

Richey, F. D., 15.  
 Richey, H. W., 59.  
 Richmond, T. E., 84.  
 Ricker, P. L., 16.  
 Rickey, F. W., 88.  
 Ricks, J. R., 71.  
 Ricks, N. D., 44.  
 Riddle, F. T., 68.  
 Rideout, P. A., 33.  
 Ridgell, R. H., 92.  
 Ridgway, C. S., 15.  
 Ridgway, J. A., 76.  
 Ridgway, J. W., 92.  
 Ridley, V. W., 17.  
 Rietz, H. L., 54.  
 Riford, L. S., 76.  
 Riggs, E. J., 84.  
 Riggs, W. M., 88, 100.  
 Rigney, I. E., 61.  
 Riley, B. M., 59.  
 Riley, E. H., 74.  
 Riley, H. W., 79.  
 Riley, S., 13.  
 Riley, W. A., 79.  
 Rilling, H. E., 90.  
 Rinehart, E. F., 18.  
 Ringland, A. C., 13.  
 Rinkle, L. G., 72.  
 Ripley, G. E., 45.  
 Risher, T. R., 45.  
 Rittenberg, S. S., 89.  
 Rittue, E. C., 17.  
 Ritzman, E. G., 76.  
 Rix, C. N., 68.  
 Rixford, G. P., 14.  
 Roadhouse, C. L., 47.  
 Roark, G. W., jr., 59.  
 Roark, L., 71.  
 Roark, R. C., 20.  
 Robb, B. B., 79.  
 Robb, N. S., 53.  
 Robbins, F. E., 56.  
 Robbins, H. E., 66.  
 Robbins, W. J., 79.  
 Robbins, W. W., 48.  
 Robert, J. C., 71.  
 Robert, S. A., 90.  
 Roberts, E., 54.  
 Roberts, G., 62.  
 Roberts, G. A., 81.  
 Roberts, H. F., 61.  
 Roberts, J. W., 14.  
 Roberts, O. S., 56.  
 Roberts, O. W., 7.  
 Roberts, R. H., 98.  
 Roberts, R. W., 5.  
 Robertson, A. G., 44.  
 Robertson, A. K., 81.  
 Robertson, L. S., 56.  
 Robertson, R. D., 34.  
 Robeson, F. L., 94.  
 Robey, O. E., 68.  
 Robinson, C. M., 54.  
 Robinson, C. S., 68.  
 Robinson, E., 48.  
 Robinson, E. L., 50.  
 Robinson, F. C., 50.

Robinson, L. E., 86.  
 Robinson, M., 79.  
 Robinson, N. J., 89.  
 Robinson, R. H., 86.  
 Robinson, S. M., 81.  
 Robinson, W. O., 23.  
 Robison, W. L., 84.  
 Rock, J. F., 52.  
 Rockie, W. A., 23.  
 Rockwell, J. E., 13.  
 Rockwell, W. L., 34.  
 Rockwood, L. P., 24.  
 Roderick, L. M., 51.  
 Rodes, W., 62.  
 Roe, H. B., 70.  
 Roehm, H. H., 98.  
 Rogers, D. M., 26.  
 Rogers, J. H., 92.  
 Rogers, J. S., 20.  
 Rogers, L. A., 8.  
 Rogers, R. F., 23.  
 Rogers, S. S., 47.  
 Rogers, W. H., 64.  
 Rohwer, C. H., 48.  
 Rohwer, S. A., 25.  
 Rokahr, M., 75.  
 Rolf, A. F., 63.  
 Rolfs, F. M., 84.  
 Rolfs, P. H., 50.  
 Romberg, A., 52.  
 Rommel, G. M., 7.  
 Ronzone, E., 72.  
 Rood, H. P., 77.  
 Roop, J. H., 56.  
 Root, A. D., 72.  
 Root, C. J., 7.  
 Root, R. R., 54.  
 Rosa, J. T., jr., 59.  
 Rose, D. H., 73.  
 Rose, F., 79.  
 Rose, M., 56.  
 Rose, R. C., 65.  
 Roseboom, B. B., jr., 68.  
 Rosenbaum, J., 14.  
 Rosengarten, W. E., 33.  
 Rosenkrans, D. B., 89.  
 Rosewall, O. W., 63.  
 Ross, B. B., 43.  
 Ross, D. E., 77.  
 Ross, H. E., 79.  
 Ross, J. F., 15.  
 Ross, S. H., 18.  
 Ross, W. H., 23.  
 Rost, C. O., 70.  
 Rothgeb, B. E., 15.  
 Rothrock, P., 15.  
 Round, L. A., 20.  
 Rouse, T. A., 89.  
 Rowan, L. J., 71.  
 Rowe, B., 70.  
 Rowell, J. L., 98.  
 Royall, R. E., 33.  
 Rubinow, S. G., 92.  
 Rucker, E. H., 72.  
 Rudd, W. N., 90.  
 Rudnick, A. W., 59.  
 Rudolph, B. A., 14.

Ruehe, H. A., 54.  
 Ruehle, G. L. A., 80.  
 Ruffner, R. H., 65.  
 Ruggles, A. G., 70.  
 Rulison, H. K., 54.  
 Rummell, L. L., 84.  
 Rumsey, L. A., 59.  
 Rumsey, W. E., 96.  
 Rundles, J. C., 4.  
 Runkel, H., 18.  
 Runner, G. A., 24.  
 Rupp, P., 8.  
 Ruprecht, R. W., 66.  
 Rush, M., 44.  
 Rusk, H. P., 54.  
 Russell, A. R., 81.  
 Russell, C. A., 15.  
 Russell, F. L., 64.  
 Russell, G. A., 15.  
 Russell, G. E., 59.  
 Russell, G. P., 63.  
 Russell, H. L., 22, 97, 100.  
 Rust, E. W., 24.  
 Ruth, W. A., 54.  
 Rutland, J. R., 43.  
 Rutledge, R. H., 13.  
 Ruzek, C. V., 86.  
 Ruzicka, C. H., 17, 82.  
 Ruzicka, L. A., 77.  
 Sachs, W. H., 54.  
 Sackett, W. G., 48.  
 Safford, W. E., 16.  
 Sahr, C. A., 31, 52.  
 Salant, W., 21.  
 Sale, J. W., 21.  
 Salisbury, G. N., 7.  
 Salisbury, S. M., 83.  
 Salmon, C., 61.  
 Salt, C. F., 59.  
 Salter, F. J., 83.  
 Salter, R. M., 96.  
 Sammet, C. F., 20.  
 Sammis, J. L., 98.  
 Samson, G. R., 86.  
 Sanborn, C. E., 84.  
 Sanborn, M. L., 76.  
 Sanders, W. H., 61.  
 Sanderson, T., 82.  
 Sandhouse, H. A., 45.  
 Sandsten, E. P., 48.  
 Sanford, F., 82.  
 Sanford, F. H., 68.  
 Sanford, H. L., 24.  
 Sans, E. R., 26.  
 Sargent, C. G., 48.  
 Sarvis, J. T., 17.  
 Sasscer, E. R., 24.  
 Satterthwait, A. F., 24, 56.  
 Sauers, C. G., 56.  
 Saunders, A., 93.  
 Saunders, D. A., 14.  
 Saunders, W. D., 94.  
 Sauvé, E. C., 98.  
 Savage, E. M., 14.  
 Savage, E. S., 79.  
 Savelly, H. E., 31.

- Sawyer, E. E., 64.  
 Sayles, M., 66.  
 Sayre, C. B., 56.  
 Scales, F. M., 14.  
 Scales, G. C., 33.  
 Scammell, H. B., 24.  
 Schaeffer, A. A., 90.  
 Schafer, E. G., 95.  
 Schaffner, J. B., jr., 26.  
 Schaffner, J. H., 83.  
 Schalk, A. F., 82.  
 Scheffer, T. H., 26.  
 Schepelman, W., 62.  
 Scherer, N. E., 83.  
 Scherffius, C. H., 96.  
 Schermerhorn, G., 59.  
 Schermerhorn, L. G., 76.  
 Scherrer, J. B., 76.  
 Schindler, L. M., 98.  
 Schlatter, F. P., 76.  
 Schleussner, O. A., 35.  
 Schlundt, H., 72.  
 Schmidt, E. W., 87.  
 Schmidt, H., 92.  
 Schmidt, K. P., 79.  
 Schmidt, R., 47.  
 Schmit, C., 98.  
 Schmitz, N., 65.  
 Schnabel, J., 50.  
 Schneck, H. W., 79.  
 Schneider, C. F., 7.  
 Schneider, F. L., 8.  
 Schneider, P. A., 93.  
 Schneller, M. A., 63.  
 Schoene, W. J., 93.  
 Schoenfeld, W. A., 90.  
 Schoening, H. W., 9.  
 Schoenlaub, J. C., 43.  
 Schoenleber, F. S., 61.  
 Schoenmann, L. R., 23.  
 Schollenberger, C. J., 84.  
 Schoonover, W. R., 54.  
 Schoppe, W. F., 74.  
 Schoultz, F. H., 59.  
 Schrack, C. V., 53.  
 Schraedick, H. E., 79.  
 Schramm, J. R., 79.  
 Schreiner, O., 14.  
 Schreiner, T. E., 45.  
 Schroeder, E. C., 10.  
 Schroeder, J. P., 23.  
 Schuele, C. H., 55.  
 Schulte, J. I., 30.  
 Schultz, O. C., 77.  
 Schultze, G. L., 4.  
 Schulz, A. W., 17.  
 Schulze, E., 37.  
 Schumaker, D., 95.  
 Schurman, J. G., 77.  
 Schuyler, J. F., 33.  
 Schwab, J. W., 56.  
 Schwartz, B., 9.  
 Schwartz, E. A., 26.  
 Schwartz, L. H., 56.  
 Schweickard, P., 70.  
 Schwing, E. A., 54.  
 Scoates, D., 71.  
 Scobey, F. C., 34.  
 Scofield, C. S., 17.  
 Scott, C. A., 61.  
 Scott, C. L., 24.  
 Scott, E. M., 83.  
 Scott, E. W., 24.  
 Scott, G. A., 94.  
 Scott, J. M., 50.  
 Scott, J. S., 53.  
 Scott, J. W., 99.  
 Scott, L. B., 17.  
 Scott, V. E., 8, 75.  
 Scovill, L. M., 98.  
 Scoville, G. P., 79.  
 Scoville, R. I., 79.  
 Scribner, F. H., 98.  
 Scribner, F. L., 5.  
 Scudder, H. D., 86.  
 Scullen, H. A., 59.  
 Seal, J. L., 59.  
 Sealock, W. E., 59.  
 Seamans, A. E., 17.  
 Seales, S., 28.  
 Sears, F. C., 66.  
 Sears, O. H., 56.  
 Seaton, L. F., 75.  
 Secrest, E., 84.  
 Seeds, K. B., 37.  
 Seeley, D. A., 68.  
 Seeley, J., 86.  
 Selby, A. D., 84.  
 Selector, I., 63.  
 Sellers, O. H., 43.  
 Selvig, C. G., 70.  
 Serex, P., jr., 66.  
 Setchell, W. A., 47.  
 Seth, J. O., 4.  
 Seulke, K. J., 79.  
 Severance, G., 95.  
 Severin, H. C., 90.  
 Severson, B. O., 87.  
 Severy, H. A., 79.  
 Sewall, H. W., 70.  
 Sewall, Mrs. T. R., 70.  
 Sewell, M. C., 61.  
 Seyboth, R., 6.  
 Seymour, H. C., 86.  
 Seymour, L., 54.  
 Seymour, R. J., 83.  
 Shafer, F. F., 34.  
 Shafer, G. D., 68.  
 Shamel, A. D., 17.  
 Shanklin, F. M., 56.  
 Shanley, E. J., 21.  
 Shantz, H. L., 16.  
 Shaper, B. W., 79.  
 Shapovalov, M., 64.  
 Sharp, I. W., 79.  
 Sharp, L. T., 47.  
 Sharples, N., 83.  
 Shattuck, C. H., 53.  
 Shaw, C. F., 47.  
 Shaw, E. L., 7.  
 Shaw, G. H., 9.  
 Shaw, J. K., 66.  
 Shaw, R. H., 8.  
 Shaw, R. S., 67, 100.  
 Shaw, S. B., 65.  
 Shaw, W. G., 90.  
 Shaw, W. T., 95.  
 Shea, H. M., 74.  
 Shear, C. L., 14.  
 Shear, W. V., 17.  
 Shearer, P. S., 59.  
 Shearman, T. G., 5.  
 Shedd, C. K., 59.  
 Shedd, O. M., 62.  
 Sheets, E. W., 96.  
 Sheets, O., 61.  
 Sheldon, J. L., 96.  
 Shellabear, A. L., 95.  
 Shepard, C. E., 49.  
 Shepard, J. H., 90.  
 Shepperd, A., 82.  
 Shepperd, J. H., 82.  
 Shepperd, J. L., 70.  
 Sherbakoff, C. D., 50.  
 Sherman, A. L., 95.  
 Sherman, C. B., 35.  
 Sherman, E. A., 11.  
 Sherman, F., jr., 81.  
 Sherman, J. H., 36.  
 Sherman, J. M., 87.  
 Sherman, W. A., 35, 39.  
 Sherwin, M. E., 81.  
 Sherwood, C. M., 21.  
 Sherwood, N. C., 64.  
 Sherwood, R. M., 61.  
 Sherwood, S. F., 19.  
 Shibley, J. G., 39.  
 Shields, R. L., 89.  
 Shinn, C. H., 12.  
 Shippen, L. P., 20.  
 Shive, J. W., 76.  
 Shoemaker, D. N., 17.  
 Shoemaker, J. N., 83.  
 Shoemith, V. M., 68.  
 Shollenberger, J. H., 15.  
 Shore, H. J., 8.  
 Shorey, E. C., 23.  
 Short, A. K., 92.  
 Shrader, H. L., 21.  
 Shuler, W. P., 84.  
 Shull, J. M., 14.  
 Siegel, M., 77.  
 Siegler, E. A., 14.  
 Siegler, E. H., 24.  
 Sieglinger, J. B., 15.  
 Sievers, A. F., 15.  
 Silberberg, B. H., 20.  
 Silcox, F. A., 13.  
 Sill, H. F., 72.  
 Silva, R. C., 88.  
 Silver, J., 26.  
 Silvester, R. W., 65.  
 Simanton, F. L., 24.  
 Simmonds, E., 18.  
 Simmonds, N., 98.  
 Simmons, G. E., 65.  
 Simmons, W. H., 62.  
 Simms, B. T., 86.  
 Simonsen, W. E., 59.  
 Simpson, C., 92.  
 Simpson, F. M., 36.



- Simpson, O. G., 86.  
 Simpson, S. T., 73.  
 Sims, M., 44.  
 Sinclair, W., 65.  
 Singleton, C. V., 53.  
 Singleton, F. E., 30.  
 Sink, S. B., 65.  
 Sinnott, E. W., 49.  
 Sirrine, E. F., 16.  
 Sirrine, F. A., 80.  
 Sisson, S., 83.  
 Sive, B. E., 73.  
 Skeeler, F. J., 92.  
 Skeels, H. C., 18.  
 Skelly, W. R., 56.  
 Skelton, G. V., 86.  
 Skinner, A. E., 61.  
 Skinner, J. H., 55.  
 Skinner, J. J., 14.  
 Skinner, L., 83.  
 Skinner, L. T., 75.  
 Skinner, W. W., 21.  
 Skofield, P. F., 94.  
 Slade, D. D., 62.  
 Slade, H. C., 37, 38.  
 Slate, W. L., jr., 49.  
 Slater, L. C., 63.  
 Slater, M. E., 55.  
 Slaughter, J. P., 7.  
 Sleight, R. B., 34.  
 Slipper, J. A., 56.  
 Sloan, W. G., 35.  
 Small, F. W., 68.  
 Smalley, H. R., 4.  
 Smies, E. H., 23.  
 Smith, A., 47.  
 Smith, A. B., 61.  
 Smith, A. C., 70.  
 Smith, A. G. (Ky.), 63.  
 Smith, A. G. (U.S.D.A.), 4.  
 Smith, A. M., 13.  
 Smith, A. W., 10.  
 Smith, C. B., 32.  
 Smith, C. D., 79.  
 Smith, C. G., 13.  
 Smith, C. M., 20.  
 Smith, C. N., 8.  
 Smith, C. O., 47.  
 Smith, C. P., 65.  
 Smith, C. S., 13.  
 Smith, C. W., 75.  
 Smith, E. B., 34.  
 Smith, E. C., 93.  
 Smith, E. E., 20.  
 Smith, E. F., 13.  
 Smith, E. H., 47.  
 Smith, F. A. C., 66.  
 Smith, F. H. (Ga.), 51.  
 Smith, F. H. (R. I.), 88.  
 Smith, G. A., 80.  
 Smith, G. D., 24.  
 Smith, G. E., 74.  
 Smith, G. E. P., 45.  
 Smith, H. A., 10.  
 Smith, H. C. (Bur. Chem.), 22.  
 Smith, H. C. (Bur. Soils), 23.  
 Smith, H. E., 24.  
 Smith, H. G., 17.  
 Smith, H. J. (Ala.), 44.  
 Smith, H. J. (Miss.), 71.  
 Smith, H. W., 65.  
 Smith, J. E. (Kans.), 61.  
 Smith, J. E. (Md.), 65.  
 Smith, J. F., 94.  
 Smith, J. G. (Hawaii), 52.  
 Smith, J. G. (U.S.D.A.), 23.  
 Smith, J. S., 79.  
 Smith, J. V., 92.  
 Smith, John W., 7.  
 Smith, J. Warren, 7, 83, 84.  
 Smith, L. A., 93.  
 Smith, L. B., 94.  
 Smith, L. H., 55.  
 Smith, M., 22.  
 Smith, M. A., 74.  
 Smith, M. J., 62.  
 Smith, N. R., 14.  
 Smith, O. C., 84.  
 Smith, O. H., 84.  
 Smith, P. H., 22, 66.  
 Smith, R. C., 79.  
 Smith, R. E. (Cal.), 47.  
 Smith, R. E. (Iowa), 59.  
 Smith, R. G., 66.  
 Smith, R. L., 92.  
 Smith, R. O., 76.  
 Smith, R. S. (Pa.), 87.  
 Smith, R. S. (U.S.D.A.), 8.  
 Smith, R. W., 15.  
 Smith, T. O., 76.  
 Smith, V., 85.  
 Smith, V. C., 83.  
 Smith, W. G., 23.  
 Smith, W. H., 55.  
 Smith, W. V., 62.  
 Smith, W. W., 56.  
 Smith, Z. M., 56.  
 Smitherman, M. J., 51.  
 Smulyan, M. T., 94.  
 Smyth, E. A., jr., 94.  
 Smyth, E. G., 88.  
 Smyth, P. H., 7.  
 Smyth, S. P., 56.  
 Snapp, R. R., 55.  
 Snider, H. J., 55.  
 Snodgrass, M. D., 31, 44.  
 Snook, J. H., 83.  
 Snow, C. M., 94.  
 Snow, O. L., 68.  
 Snow, S. J., 24.  
 Snowden, M., 63.  
 Snyder, D. E., 84.  
 Snyder, E., 17.  
 Snyder, J. M., 23.  
 Snyder, R. S., 59.  
 Snyder, T. E., 25.  
 Snyder, W. P., 75.  
 Solem, O. P., 33.  
 Soletsky, D., 20.  
 Solomon, H., 71.  
 Somes, M. P., 73.  
 Sommers, G. V., 90.  
 Sondergaard, M. P. A., 8.  
 Sorensen, C. J., 93.  
 Soule, A. M., 51.  
 Southwick, B. G., 49.  
 Spafford, R. R., 75.  
 Spalding, M. E., 73.  
 Spangler, S. M., 90.  
 Sparks, E. E., 86.  
 Spaulding, M. H., 74.  
 Spaulding, P., 14.  
 Speare, A. T., 24.  
 Spears, H. D., 62.  
 Speas, W. E., 89.  
 Speh, C. F., 20.  
 Spence, E. R., 73.  
 Spence, T. H., 65.  
 Spencer, A. P., 50.  
 Spencer, D. A., 84.  
 Spencer, G. C., 19.  
 Spencer, G. E., 88.  
 Spillman, W. J., 4.  
 Spinney, L. B., 59.  
 Spitzer, G., 56.  
 Spoon, W. L., 33.  
 Spragg, F. A., 68.  
 Sprague, C. B., 95.  
 Sprague, M. E., 49.  
 Priestersbach, D. O., 70.  
 Spriggs, A. D. G., 96.  
 Spring, S. N., 79.  
 Sprott, W. T. P., 92.  
 Spurway, C. H., 63.  
 Squire, C. H., 11.  
 Stabler, H. O., 13.  
 Stack, J. W., 68.  
 Stadtmueller, F. H., 22.  
 Staebner, F. E., 35.  
 Staebner, W. H., 62.  
 Stahl, C. F., 25.  
 Stahl, C. J., 13.  
 Stahl, H. S., 94.  
 Stahl, J. L., 95.  
 Stakman, E. C., 70.  
 Staley, F. M., 89.  
 Staley, W. F., 4.  
 Stallings, B. D., 28.  
 Stanfield, W. W., 59.  
 Stanford, E. E., 81.  
 Stange, C. H., 59.  
 Stanley, C. W., 56.  
 Stanley, F. W., 34.  
 Stanley, H. H., 76.  
 Stanley, L., 73.  
 Stanton, A. C., 65.  
 Stanton, E. W., 59.  
 Stanton, M. B., 55.  
 Stanton, T. R., 15.  
 Staples, C. H., 63.  
 Starcher, G. C., 94.  
 Starin, W. A., 83.  
 Starks, D. A., 50.  
 Starr, C. G., 56.  
 Starr, S. H., 51.  
 Starring, C. C., 74.  
 Starring, G. A., 90.  
 Steddom, R. P., 8.

- Stedman, J. M., 30.  
 Steece, H. M., 15.  
 Steenbock, H., 98.  
 Steik, K. T., 99.  
 Steinkoenig, L. A., 23.  
 Stelzenmuller, G. V., 44.  
 Stemmons, W., 85.  
 Stemple, F. W., 83.  
 Stene, A. E., 88.  
 Stenius, J. A., 84.  
 Stephens, D. E., 15, 86.  
 Stephens, J. M., 16.  
 Stephenson, C. H., 20.  
 Sterrett, W. D., 12.  
 Stevens, A. T., 49.  
 Stevens, E. H., 23.  
 Stevens, F. D., 4.  
 Stevens, G. E., 55.  
 Stevens, H. E., 50.  
 Stevens, J. S., 65.  
 Stevens, N. E., 14.  
 Stevens, O. A., 82.  
 Stevens, R. T., 47.  
 Stevenson, J. A., 88.  
 Stevenson, J. N., 65.  
 Stevenson, W. H., 59.  
 Stewart, E. D., 82.  
 Stewart, F. C., 80.  
 Stewart, G., 93.  
 Stewart, G. R., 47.  
 Stewart, H. W., 98.  
 Stewart, J. P., 87.  
 Stewart, J. T., 35, 70.  
 Stewart, M. M., 36.  
 Stewart, O. J., 76.  
 Stewart, R., 55.  
 Stewart, R. H., 93.  
 Stewart, R. L., 77.  
 Stewart, V. B., 79.  
 Stickle, M. V., 94.  
 Stimmel, S. E., 83.  
 Stine, O. C., 98.  
 Stivers, E. D., 90.  
 Stoa, T. E., 15, 82.  
 Stockberger, W. W., 15.  
 Stockham, W. L., 82.  
 Stocking, W. A., jr., 79.  
 Stockwell, C. W., 26.  
 Stockwell, H. C., 8, 90.  
 Stoddard, E. F., 65.  
 Stoddard, E. M., 49.  
 Stoddard, C. W., 87.  
 Stoltenberg, F. C., 90.  
 Stoltz, R. B., 83.  
 Stone, A. L., 98.  
 Stone, C. W., 76.  
 Stone, G. E., 66.  
 Stone, J. L., 79.  
 Stone, T. C., 83.  
 Stone, W. C., 93.  
 Stone, W. E., 55.  
 Stone, W. R., 76.  
 Stoner, H. H., 90.  
 Stoner, M. A., 82.  
 Stookey, E. B., 95.  
 Storey, E. S., 44.  
 Storm, A. V., 70, 100.
- Storvick, O. A., 8.  
 Story, G. F. E., 93.  
 Stott, M. L., 16.  
 Stouder, K. W., 59.  
 Stover, M. E., 47.  
 Stover, W. G., 83.  
 Strahan, J. L., 79.  
 Strahorn, A. T., 23.  
 Straight, E. M., 76.  
 Strait, E. D., 4.  
 Strait, H. G., 4.  
 Straughn, M. N., 19.  
 Strauss, J. F., 24.  
 Strausz, A. L., 95.  
 Street, J. P., 49.  
 Strong, Mrs. E. L., 63.  
 Strowd, W. H., 98.  
 Stuart, D., 8.  
 Stuart, G. A., 16.  
 Stuart, R. Y., 11.  
 Stuart, W., 17.  
 Stubbs, C. D., 45.  
 Stubenrauch, A. V., 47.  
 Stuckey, H. P., 51.  
 Stuntz, S. C., 18.  
 Sturdevant, L. B., 75.  
 Sturtevant, A. P., 67.  
 Suarez, E., 44.  
 Suchtelen, F. H. H. van, 67.  
 Sudworth, G. B., 10, 39.  
 Suer, W. J., 59.  
 Suggs, D. C., 51.  
 Sullivan, A. L., 21.  
 Sullivan, H., 82.  
 Sullivan, J., 92.  
 Sullivan, K. C., 73.  
 Sullivan, R. H., 7.  
 Summers, A. D., 63.  
 Summers, H. E., 59.  
 Summers, J. N., 26.  
 Summers, T. H., 4.  
 Sumner, W. A., 98.  
 Supplee, G. C., 79.  
 Surface, F. M., 65.  
 Sutherland, I., 59.  
 Sutherland, M. E., 95.  
 Sutherlin, H., 94.  
 Suttle, A. D., 71.  
 Sutton, J. A., 84.  
 Sutton, L. F., 96.  
 Swanson, C. O., 61.  
 Swartwout, A. M., 73.  
 Sweeney, M. E., 62.  
 Sweeney, M. P., 80.  
 Sweet, A. T., 23.  
 Sweet, M. B., 53.  
 Sweetzer, C. H., 33.  
 Swenk, M. H., 75.  
 Swenson, S. J., 95.  
 Swezey, O. H., 52.  
 Swift, A. J., 96.  
 Swingle, D. B., 74.  
 Swingle, M. K., 14.  
 Swingle, W. T., 14.  
 Swire, R. P., 64.  
 Switzer, H. B., 56.  
 Swope, W. D., 87.
- Sykes, E. R. C., 86.  
 Sykes, G. F., 86.  
 Sylvester, W. W., 56.  
 Symons, T. B., 65.  
 Szymoniak, B., 81.
- Tabor, P., 51.  
 Taff, P. C., 59.  
 Taft, L. R., 68.  
 Taggart, L. M., 59.  
 Taggart, W. G., 64.  
 Tague, E. L., 61.  
 Tailby, G. W., jr., 79.  
 Tait, C. E., 34.  
 Talbert, T. J., 73.  
 Talbot, M., 85.  
 Talbot, N., 85.  
 Talliaferro, W. T. L., 65.  
 Talman, C. F., 6.  
 Tanaka, T., 14.  
 Tanner, H. T., 71.  
 Tannreuther, G. W., 73.  
 Tanquary, M. C., 61.  
 Tappen, N. M., 44.  
 Tarbox, F. G., jr., 89.  
 Tarr, L. W., 50.  
 Tartar, H. V., 86.  
 Tate, H. D., 90.  
 Taubenhause, J. J., 50.  
 Tavernetti, T., 47.  
 Taylor, A. D., 83.  
 Taylor, A. E. (Ohio), 84.  
 Taylor, A. E. (U.S.D.A.), 23.  
 Taylor, A. F., 26.  
 Taylor, B. E., 82.  
 Taylor, D. J., 51.  
 Taylor, E. P., 53.  
 Taylor, F., 35, 37, 38.  
 Taylor, F. W., 76.  
 Taylor, G. B., 8.  
 Taylor, H. C., 98.  
 Taylor, L. C., 44.  
 Taylor, O. M., 80.  
 Taylor, R. H., 47.  
 Taylor, R. M., 68.  
 Taylor, S. L., 33.  
 Taylor, W. A., 13, 100.  
 Teele, R. P., 34.  
 Teesdale, C. H., 12.  
 Temple, C. E., 65.  
 Temple, J. C., 51.  
 Templeton, G. S., 44.  
 Tennant, H. V., 98.  
 Terrell, D. V., 62.  
 Terrell, R. C., 62.  
 Terrell, W. G., 62.  
 Terrill, B. M., 93.  
 Test, L. A., 59.  
 Thach, C. C., 43.  
 Thacker, A. E., 43.  
 Tharp, W. E., 23.  
 Thatcher, L. E., 83.  
 Thatcher, R. W., 70, 100.  
 Thayer, B. M., 93.  
 Thayer, C. L., 79.  
 Thayer, P., 84.  
 Thelen, R., 12.

- Thiessen, A. H., 7.  
 Thissell, H. I., 77.  
 Thom, C., 20.  
 Thom, C. C., 95.  
 Thomas, C. C., 79.  
 Thomas, D., 45.  
 Thomas, E. E., 47.  
 Thomas, E. K., 88.  
 Thomas, F. L., 44.  
 Thomas, G., 38, 93.  
 Thomas, J. F., 65.  
 Thomas, J. L., 8, 92.  
 Thomas, L., 82.  
 Thomas, L. M., 15.  
 Thomas, M., 82.  
 Thomas, R. H., 51.  
 Thomas, W. A., 89.  
 Thompson, A. L., 79.  
 Thompson, A. R., 31, 52.  
 Thompson, B. E., 68.  
 Thompson, B. L., 90.  
 Thompson, C. H., 67.  
 Thompson, C. P., 61.  
 Thompson, C. W., 38, 39.  
 Thompson, Mrs. E. F., 73.  
 Thompson, E. J., 82.  
 Thompson, F., 50.  
 Thompson, G. E., 61.  
 Thompson, H., 4.  
 Thompson, H. C. (Mass.), 67.  
 Thompson, H. C. (U.S.D.A.), 17.  
 Thompson, J., 15.  
 Thompson, J. B. (Biol. Survey), 28.  
 Thompson, J. B. (S. R. S.), 31, 52.  
 Thompson, J. I., 47.  
 Thompson, L., 59.  
 Thompson, M. J., 70.  
 Thompson, O. A., 82.  
 Thompson, P. E., 56.  
 Thompson, R. B., 77.  
 Thompson, S. C., 8.  
 Thompson, S. H., 59.  
 Thompson, W. C., 77.  
 Thompson, W. O., 82, 100.  
 Thomson, A. S., 67.  
 Thomson, E. H., 4.  
 Thomson, H. L., 85.  
 Thomson, S. M., 4.  
 Thornber, J. J., 45.  
 Thornber, W. S., 95.  
 Thornburg, M. G., 59.  
 Thorne, C. E., 83, 100.  
 Thorne, L. E., 55.  
 Thornton, M. K., jr., 92.  
 Throckmorton, R. I., 61.  
 Thrun, W. E., 73.  
 Thurston, W. B., 8.  
 Thysell, J. C., 17.  
 Tidestrom, I., 16.  
 Tiebout, G. L., 64.  
 Tiemann, H. D., 12.  
 Tiffany, E. M., 61.  
 Tiffany, H. E., 50.  
 Tiller, R. J., 14.  
 Tillman, B. W., 23.  
 Tillotson, C. R., 12.  
 Tilton, L. D., 55.  
 Timberlake, P. H., 24.  
 Tisdale, H. B., 44.  
 Tisdale, W. B., 71.  
 Titlow, C. R., 96.  
 Tittsworth, B. E., 79.  
 Titus, E. G., 93.  
 Tobey, E. R., 65.  
 Tobin, J. J., 33.  
 Tobiska, J. W., 48.  
 Todd, C. C., 95.  
 Tolaas, A. G., 70.  
 Toler, W. L., 64.  
 Tolman, L. M., 21.  
 Tolstrup, M. R., 59.  
 Tomhave, W. H., 87.  
 Tomkins, L. C., 87.  
 Tompson, H. F., 67.  
 Toms, R. E., 33.  
 Tomson, W. E., 61.  
 Torgerson, E. F., 55.  
 Tormey, J. L., 98.  
 Torrey, G. S., 49.  
 Tottingham, W. E., 98.  
 Tower, D. G., 24, 56.  
 Tower, W. V., 88.  
 Towle, R. S., 17.  
 Towles, V. E., 33.  
 Townsend, C. H. T., 26.  
 Townsend, C. O., 17.  
 Townsend, W. E., 14.  
 Tracy, J. E. W., 17.  
 Tracy, S. M., 16.  
 Tracy, W. W., jr., 17.  
 Tracy, W. W., sr., 17.  
 Transeau, E. N., 83.  
 Traum, J., 47.  
 Treacy, R. H., 8.  
 Treat, N., 61.  
 Trescot, K. B., 89.  
 Trescot, T. C., 20.  
 Tretsvén, O., 74.  
 Treuthardt, E. L. P., 19.  
 Trilling, M. B., 70.  
 Trimble, J. M., 94.  
 Trimble, R. E., 48.  
 Troop, J., 56.  
 Trotter, F. B., 96.  
 Trowbridge, E. A., 73.  
 Trowbridge, P. F., 73.  
 Troy, H. C., 79.  
 Truax, T. R., 59.  
 True, A. C., 29, 43, 100.  
 True, G. H., 47.  
 True, L. J., 55.  
 True, R. H., 15.  
 Truesdell, L. E., 38.  
 Trullinger, R. W., 30.  
 Truog, E., 98.  
 Tubergen, C. B., 80.  
 Tuck, C. H., 79.  
 Tucker, E. S., 64.  
 Tucker, F. G., 95.  
 Tucker, G. M., 30.  
 Tucker, H. E., 38.  
 Tucker, M. L., 83.  
 Tufts, W. P., 47.  
 Tungeln, G. H. von, 59.  
 Tunison, L., 71.  
 Turley, A. M., 86.  
 Turner, C. F., 24.  
 Turner, F., 55.  
 Turner, F. J., 61.  
 Turner, H. A., 4.  
 Turner, J. A., 98.  
 Turner, J. D., 62.  
 Turner, L. G., 90.  
 Turner, W. B., 26.  
 Turner, W. F. (Mass.), 67.  
 Turner, W. F. (U. S. D. A.), 24.  
 Turpin, G. M., 59.  
 Turrentine, J. W., 23.  
 Tuttle, E. M., 79.  
 Tuttle, F. E., 62.  
 Tuttle, H. F., 84.  
 Tuttle, O. N., 70.  
 Tyler, C. A., 68.  
 Ufford, O. C., 59.  
 Ullsperger, H. W., 98.  
 Umberger, H. J. C., 61.  
 Umholtz, A. J., 73.  
 Uphof, J. C. Th., 45.  
 Upson, F. W., 75.  
 Urbahns, T. D., 24.  
 Utt, C. A. A., 61.  
 Vail, C. E., 48.  
 Valle, R. S., 47.  
 Valentine, V., 90.  
 Valgren, V. N., 38.  
 Valteau, W. D., 70.  
 Vallentgoed, R. W. J., 17.  
 Van Alstine, E., 55.  
 Van Atta, D. R., 84.  
 Vanatta, E. E., 73.  
 Vanatta, E. S., 23.  
 Vanatter, P. O., 51.  
 Vance, J., 75.  
 Van Deman, R., 79.  
 Vanderwilt, E. N., 61.  
 Van Dine, D. L., 25.  
 Vandracek, L. J., 15.  
 Van Duyn, C., 23.  
 Van Duzee, E. P., 47.  
 Van Dyck, F. C., 76.  
 Van Dyke, E. C., 47.  
 Van Es, L., 82.  
 Van Eseltine, G. P., 18.  
 Van Fleet, W., 15.  
 Van Hise, C. R., 97.  
 Van Hynning, T., 50.  
 Van Kirk, M. S., 75.  
 Van Meter, A. R., 83.  
 Van Norman, H. E., 47.  
 Van Nuis, C. S., 77.  
 Van Rensselaer, M., 79.  
 Vansell, G. H., 62.  
 Van Slyke, L. L., 80.  
 van Suchtelen, F. H. H., 67.

- Van Zile, M. P., 61.  
 Van Zwaluwenburg, R. H., 31, 87.  
 Vaplon, W. E., 48.  
 Vasey, H. E., 75.  
 Vaughan, E. A., 44.  
 Vaughan, H. W., 59.  
 Vaughan, R. E., 98.  
 Vaughn, E. C., 62.  
 Vaulx, J., 45.  
 Vawter, C. E., 94.  
 Veatch, J. O., 23.  
 Veitch, F. P., 20.  
 Venegar, F. T., 46.  
 Venning, F. L., 55.  
 Verwiebe, W. A., 83.  
 Vestal, C. M., 61.  
 Vickers, H. A., 86.  
 Vickery, R. A., 24.  
 Viehmeyer, F. J., 34.  
 Viehoever, A., 21.  
 Vinall, H. N., 16.  
 Vincent, C. C., 53.  
 Vincent, G. E., 68.  
 Vinson, A. E., 45.  
 Vinton, F., 79.  
 Visart, E. V., 27.  
 Vivian, A., 82.  
 Vivian, C. A., 44.  
 Vogt, P., 83.  
 Volck, W. H., 47.  
 Volz, E. C., 79.  
 von Ende, C. L., 53.  
 von Hermann, C. F., 7.  
 von KleinSmid, R. B., 45.  
 von Tungeln, G. H., 59.  
 Voorhees, J. F., 90.  
 Voorhies, E. C., 47.  
 Vorhies, C. T., 45.  
 Vosbury, E. D., 17.  
 Voshell, J. T., 33.  
 Vrooman, C., 3.  
 Wacaser, W. D., 28.  
 Wachter, H. M., 84.  
 Waddle, N., 16.  
 Wade, C. I., 94.  
 Wade, J. A., 22.  
 Wade, J. S., 24.  
 Waffle, E. R., 59.  
 Waggaman, W. H., 23.  
 Waggoner, C. W., 96.  
 Waha, A. O., 13.  
 Waid, C. W., 68.  
 Waid, E. D., 67.  
 Wait, C. E., 90.  
 Waite, M. B., 14, 39.  
 Waite, R. H., 65.  
 Waitt, A. H., 62.  
 Waksman, S. A., 77.  
 Walden, B. H., 49.  
 Waldraff, P. H., 20.  
 Waldron, C. B., 82.  
 Waldron, L. R., 82.  
 Waldron, R. A., 87.  
 Walker, B. M., 71.  
 Walker, E., 44.  
 Walker, G. B., 71.  
 Walker, G. G., 83.  
 Walker, H. B., 61.  
 Walker, H. F., 35.  
 Walker, H. S., 52.  
 Walker, L. S., 67.  
 Walker, S. S., 50.  
 Walker, W. B., 4.  
 Walkey, F. L., 56.  
 Wallace, L. M., 56.  
 Wallace, R. C. E., 56.  
 Waller, A. E., 83.  
 Waller, A. G., 76.  
 Waller, C. H., 92.  
 Waller, O. L., 95.  
 Walls, E. E., 59.  
 Walsh, W. F., 80.  
 Walster, H. L., 98.  
 Walters, E. H., 14.  
 Walters, M., 85.  
 Walton, C. F., jr., 30, 32.  
 Walton, G. P., 20.  
 Walton, R. C., 84.  
 Walton, W. R., 24.  
 Walworth, E. H., 55.  
 Walz, F. J., 7.  
 Warber, G. P., 37.  
 Warburton, C. W., 15.  
 Ward, A. H., 89.  
 Ward, A. R., 9.  
 Ward, D. D., 17.  
 Ward, F. E., 32.  
 Ward, R. A., 26.  
 Ward, W. F., 7.  
 Ware, A. S., 92.  
 Wark, A. C., 77.  
 Warner, A. J., 79.  
 Warner, D. E., jr., 49.  
 Warner, E., 75.  
 Warner, K. F., 75.  
 Warren, G. F., 79.  
 Warren, G. M., 34.  
 Warsaw, W. W., 79.  
 Wascher, F. M. W., 55.  
 Washburn, F. L., 70.  
 Washburn, H. J., 9.  
 Washburn, R. M., 70.  
 Washburn, R. S., 4.  
 Washburn, W. F., 82.  
 Washington, Mrs. B. T., 44.  
 Washington, B. T., jr., 44.  
 Washington, J. I., 89.  
 Waters, H. J., 59, 100.  
 Watkins, D. W., 8.  
 Watkins, L. J., 44.  
 Watkins, O. S., 55.  
 Watkins, W. I., 23.  
 Watrud, H. O., 98.  
 Watson, C. W., 45.  
 Watson, E. B., 23.  
 Watson, E. J. (La.), 64.  
 Watson, E. J. (U. S. D. A.), 22.  
 Watson, I. A., 22.  
 Watson, J. G., 73.  
 Watson, J. R., 50.  
 Watson, J. W., 94.  
 Watson, L. O., 14.  
 Watson, O. M., 90.  
 Watt, A., 68.  
 Watts, H. R., 90.  
 Watts, R. J., 67.  
 Watts, R. L., 86.  
 Waugh, F. A., 67.  
 Way, A. E., 47.  
 Weakley, C. E., jr., 96.  
 Weaver, F. P., 87.  
 Weaver, L. A., 73.  
 Webb, H. J., 93.  
 Webb, J. L., 24.  
 Webb, W. S., 62.  
 Webb, W. W., 44.  
 Webber, H. J., 48, 100.  
 Webber, R. T., 26.  
 Weber, F. C., 18.  
 Webster, H., 30.  
 Webster, R. L., 59.  
 Weeter, H. M., 55.  
 Wegner, E. E., 96.  
 Wehrbein, H., 59.  
 Weigley, M., 70.  
 Weimer, J. L., 79.  
 Weir, J. R., 14.  
 Weir, W. J. R., 33.  
 Weir, W. W. (Cal., U.S.D.A.), 34, 48.  
 Weir, W. W. (Wis.), 98.  
 Weiss, H. F., 12.  
 Welch, C. H., 70.  
 Welch, E. G., 51.  
 Welch, H., 74.  
 Welch, J. P., 93.  
 Welch, J. S., 53.  
 Welch, P. S., 61.  
 Welch, R. R., 8.  
 Weld, L. D. H., 37.  
 Weller, M., 70.  
 Wellington, C., 67.  
 Wellington, J. W., 80.  
 Wellington, R., 70.  
 Wells, C. A., 51.  
 Wells, E. L., 7.  
 Wells, H. C., 33.  
 Wells, W. G., 14.  
 Welton, F. A., 84.  
 Wene, E. H., 77.  
 Wentling, J. P., 70.  
 Wentworth, E. N., 61.  
 Werff, H. A. de, 54.  
 Werkenthin, F. C., 77.  
 Wermelskirchen, L., 92.  
 Werner, H. O., 82.  
 Werner, H. R., 59.  
 Werner, P., 73.  
 Wershow, M., 83.  
 Werthmueller, F. R., 52.  
 Wessels, P. H., 88.  
 Wessling, H. L., 21.  
 West, F. L., 93.  
 West, J. T., 71.  
 West, R. B., 93.  
 West, R. M., 70.  
 Westbrook, E. C., 51.  
 Westcott, J. C., 94.



- Westgate, J. M., 31, 52.  
Westgate, V. V., 96.  
Westley, R. O., 59.  
Weston, J. W., 68.  
Westover, H. L., 16.  
Wetmore, A., 26.  
Wharton, G., 12.  
Wharton, G. W., 4.  
Wheeler, B. I., 46.  
Wheeler, B. L., 11.  
Wheeler, C. S., 82.  
Wheeler, H. C., 55.  
Wheeler, L., 70.  
Wheeler, R., 55.  
Wheeler, R. H., 79.  
Wheeler, W. P., 80.  
Wheelock, W. R., 79.  
Whelan, D. B., 68.  
Whezel, H. H., 79.  
Whipple, O. B., 74.  
Whisenand, J. W., 55.  
Whitacre, J., 83.  
Whitaker, H. D., 96.  
Whitaker, J. A., 33.  
Whitaker, W. K., 96.  
Whitchurch, J. E., 55.  
Whitcomb, E. S., 99.  
Whitcomb, F., 65.  
Whitcomb, W. O., 74.  
White, A., 65.  
White, A. R., 16.  
White, B., 81.  
White, C. H., 65.  
White, C. W., 62.  
White, D. S., 82.  
White, E. A. (Ill.), 55.  
White, E. A. (N. Y.), 80.  
White, E. F., 71.  
White, E. N., 83.  
White, F. M., 98.  
White, G. C. (Conn.), 49.  
White G. C. (U.S.D.A.), 36.  
White, G. D., 44.  
White, G. F., 25.  
White, G. L., 68.  
White, G. R., 44.  
White, H., 93.  
White, H. B., 70.  
White, H. C., 51.  
White, H. J., 65.  
White, H. L., 82.  
White, J. K., 22.  
White, J. L., 90.  
White, J. W., 87.  
White, O. K., 68.  
White, S., 94.  
White, T. H., 65.  
White, W., 8.  
White, W. B., 80.  
White, W. H., 25.  
White, W. J., 96.  
White, Mrs. W. P., 51.  
White, W. R., 87.  
Whitehill, A. R., 96.  
Whitehouse, A. W., 48.  
Whiting, A. L., 55.  
Whiting, R. A., 56.  
Whitlock, B. W., 74.  
Whitmarsh, R. D., 84.  
Whitney, C. W., 80.  
Whitney, E. M., 49.  
Whitney, M., 22, 100.  
Whitsit, L. A., 13.  
Whitson, A. R., 98.  
Whitson, L. R., 70.  
Whittelsey, A. H., 32.  
Whitten, J. C., 73.  
Whittenton, R. O., 85.  
Whittier, A. C., 50.  
Whittle, C. A., 51.  
Whittlesey, E. B., 49.  
Wiancko, A. T., 56.  
Wiberg, A. B., 96.  
Wickes, W. M., 92.  
Wicks, W. H., 45.  
Wickson, E. J., 48.  
Widtsoe, J. A., 92.  
Wiegand, K. M., 80.  
Wiggans, C. C., 73.  
Wiggans, R. G., 80.  
Wiggin, G. H., 70.  
Wiggins, F. C., 81.  
Wight, A. E., 8.  
Wight, W. F., 17.  
Wilcox, B. B., 21.  
Wilcox, E. M., 75.  
Wilcox, E. V., 30.  
Wilcox, R. B., 14.  
Wilcox, R. H., 55.  
Wilde, E. I., 87.  
Wilder, H. J., 32.  
Wilder, S., 70.  
Wildermuth, V. L., 24.  
Wiley, R. C., 61.  
Wilkins, F. S., 59.  
Wilkins, L. K., 76, 77.  
Wilkins, R. H., 62.  
Wilkinson, A. E., 80.  
Wilkinson, E., 93.  
Wilkinson, J. A., 59.  
Wilkinson, R. S., 89.  
Will, E. G., 45.  
Willaman, J. J., 70.  
Willard, J. T., 61.  
Willard, R. E., 4, 92.  
Willett, G., 27.  
Willey, L. D., 17.  
Willey, L. E., 59.  
Williams, A. W., 55.  
Williams, C. B., 81.  
Williams, C. G., 84.  
Williams, C. M. (Iowa), 59.  
Williams, C. M. (Mo.), 73.  
Williams, E. A., 51.  
Williams, G., 73.  
Williams, G. A. (Idaho), 53.  
Williams, G. A. (Iowa), 59.  
Williams, G. I., 70.  
Williams, H. E., 5.  
Williams, H. F., 75.  
Williams, H. S., 73.  
Williams, J. C., 45.  
Williams, J. J., 77.  
Williams, J. M., 89.  
Williams, J. O., 89.  
Williams, J. R., 26.  
Williams, L., 44.  
Williams, L. C., 61.  
Williams, L. F., 81.  
Williams, M. B., 34.  
Williams, O. E., 8.  
Williams, R. C., 65.  
Williams, R. H., 45.  
Williams, R. R., 19.  
Williams, R. W., 3.  
Williams, W. N., 9.  
Williamson, C. G., 93.  
Williamson, C. M., 81.  
Williamson, H. H., 92.  
Williamson, J. T., 44.  
Williamson, W., 70.  
Willier, J. G., 15.  
Willis, L. G., 90.  
Willis, M. A., 53.  
Willis, R. L., 77.  
Willison, F., 83.  
Willoughby, C. L., 50.  
Willsey, E. M., 59.  
Willson, C. A., 90.  
Willson, G. H., 6, 7.  
Willson, I., 98.  
Wilson, A. D., 68.  
Wilson, B. D., 80.  
Wilson, B. S., 61.  
Wilson, C. B., 53.  
Wilson, C. E., 71.  
Wilson, C. P. (N. Mex.), 77.  
Wilson, C. P. (U. S. D. A.), 21.  
Wilson, C. S., 22.  
Wilson, F. W., 75.  
Wilson, G., 85.  
Wilson, G. M., 59.  
Wilson, H. A., 44.  
Wilson, H. C., 44.  
Wilson, H. F., 98.  
Wilson, J., 59.  
Wilson, J. A., 85.  
Wilson, J. B., 18.  
Wilson, J. J., 70.  
Wilson, J. K., 80.  
Wilson, J. W., 89.  
Wilson, M. C., 93.  
Wilson, M. L., 74.  
Wilson, M. M., 75.  
Wilson, P. St. J., 32.  
Wilson, R., 17.  
Wilson, R. N., 24.  
Wilson, R. S., 71.  
Wilson, T. S., 24.  
Wilson, W. M., 7, 80.  
Wilson, W. R., 76.  
Winans, L. L., 33.  
Winckelman, H., 14.  
Wing, H. H., 80.  
Wing, L. W., jr., 73.  
Winkjer, J. G., 8.  
Winslow, C. P., 12.  
Winslow, D. H., 33.  
Winsor, L. M., 34, 93.  
Winston, J. R., 86.

- Winston, R. A., 23.  
 Winter, O. B., 68.  
 Winters, N. E., 92.  
 Winters, R. Y., 81.  
 Wirt, F. A., 61.  
 Wise, F. B., 15.  
 Wise, L. E., 14.  
 Wiseman, R. E., 61.  
 Withers, W. A., 81.  
 Withrow, J. R., 83.  
 Withycombe, R., 86.  
 Witmer, E., 21.  
 Wobus, W. W., 48.  
 Woodsdalek, J. E., 53.  
 Woglum, R. S., 24.  
 Wojta, J. F., 98.  
 Wolcott, G. E., 8, 65.  
 Wolcott, G. N., 88.  
 Wolf, F. A., 81.  
 Wolfe, S. L., 13.  
 Wolfe, T. K., 94.  
 Wolff, W. H., 76.  
 Woll, F. W., 48.  
 Wolters, T. H., 92.  
 Wonders, J. C., 33.  
 Wood, A. T., 92.  
 Wood, C. A., 92.  
 Wood, D. C., 74.  
 Wood, H. P., 25.  
 Wood, I. D., 75.  
 Wood, R. A., 90.  
 Wood, W. B., 24.  
 Wood, W. H., 92.  
 Wood, W. P., 68.  
 Woodard, C. S., 64.  
 Woodbury, C. G., 56.  
 Woodbury, T. D., 13.  
 Woodcock, E. F., 68.  
 Woodin, G. C., 68.  
 Woodman, A., 70.  
 Woodman, L. E., 65.  
 Woods, A. F., 68.  
 Woods, B. S., 51.  
 Woods, C. D., 64, 100.  
 Woods, M., 44.  
 Woodward, B. T., 9.  
 Woodward, C. R., 76, 77.  
 Woodward, E. G., 75.  
 Woodward, H. E., 18.  
 Woodward, K. W., 76.  
 Woodward, S. M., 35.  
 Woodward, T. E., 8.  
 Woodward, W. C., 22.  
 Woodworth, C. W., 48.  
 Wooldridge, R., 26.  
 Woolman, H., 96.  
 Wooton, E. O., 4.  
 Work, P., 80.  
 Working, D. W., 32.  
 Works, G. A., 80.  
 Worrel, M. E., 33.  
 Worsham, W. A., jr., 51.  
 Worst, J. H., 81.  
 Worthen, E. L., 87.  
 Worthley, L. H., 26.  
 Wray, J. D., 81.  
 Wright, C. D., 19.  
 Wright, H. K., 62.  
 Wright, P. A., 8.  
 Wright, R. C., 14.  
 Wright, R. G., 76.  
 Wright, R. R., 51.  
 Wright, S. G., 7.  
 Wright, T., 39, 64.  
 Wright, T. H., 96.  
 Wright, W. R., 53.  
 Wright, W. T., 92.  
 Wyatt, F. A., 55.  
 Wyatt, W. C., 32.  
 Yanovsky, E., 19.  
 Yansey, H. F., 73.  
 Yapp, W. W., 55.  
 Yarnell, D. L., 34.  
 Yerby, E. D., 28.  
 Yerkes, A. P., 4.  
 Yerrington, C. M., 26.  
 Yoder, M., 15.  
 Yoder, P. A., 17.  
 Yohe, H. S., 35.  
 Yoke, J. J., 96.  
 Yothers, M. A., 96.  
 Yothers, W. W., 24.  
 Young, C. O., 21.  
 Young, H. B., 80.  
 Young, H. D., 48.  
 Young, H. J., 75.  
 Young, H. P., 76.  
 Young, J. P., 15.  
 Young, M. H., 92.  
 Young, N. B., 50.  
 Young, R. A., 18.  
 Young, T. B., 15.  
 Youngblood, B., 22, 91.  
 Youngburg, G. E., 90.  
 Zahnley, J. W., 61.  
 Zappe, M. P., 49.  
 Zappone, A., 28.  
 Zeasman, O. R., 98.  
 Zeeuw, R. de, 67.  
 Zentmire, D. H., 59.  
 Zentmire, Z., 59.  
 Ziesenheim, J., 55.  
 Zilles, B. M., 73.  
 Zimm, L. A., 80.  
 Zimmer, E. R., 80.  
 Zimmerly, H. H., 94.  
 Zinn, C. J., 48.  
 Zinn, J., 65.  
 Zoller, H. F., 61.  
 Zon, R., 12.  
 Zook, L. L., 17.